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FIELD STUDY TO DETERMINE TEACHER AND STUDENT NEEDS REGARDING CURRICULUM DOCUMENTS AND RESOURCES

COMPLETE REPORT

by

H.C. Rhodes

and

E.A. Torgunrud

Under Contract to Alberta Education

September

1989

90-03573/

Please Note:

The views and recommendations expressed in this report are those of the researchers and not necessarily those of the Department of Education.

ABSTRACT

The main purposes of the study were 1) to identify teacher and student needs relative to the implementation of new and revised curricula, 2) to determine the effectiveness of current publications and procedures in providing the support needed, and 3) to identify means for improving them.

The methods employed in the study were 1) reviews of the research on related topics, 2) interviews of teachers, administrators and consultants responsible for curriculum implementations, and 3) consultant analyses which applied the experience and judgment of members of the study team.

Findings, conclusions and recommendations included the following highlights:

- Curriculum implementation support publications and provisions are needed, are used widely, but need to be augmented and increased when the curriculum change is of a substantive nature or requires marked changes in one or more of teachers' knowledge, beliefs and attitudes, and pedagogical practices.
- Recent publications such as those developed as supports for programs in Health, CALM 20, Secondary Mathematics, and Elementary Drama are widely used, appreciated and can serve as prototypes for future development.
- Technologies which employ the school's microcomputer and the systems developed for distance education are recommended at various points throughout the report i.e., for self-study and small group inservice, computerized filing of test items and test generation, for providing and pooling up-to-date information on references and program implementation ideas, and for facilitating communication in professional peer networks.
- Recommendations are included about the contents and formatting of curriculum support documents, providing overview summaries of essentials tailored for various kinds of users including parents, providing complementary inservice for groups as well as provisions for independent study, conducting needs assessments and aggregating results from program evaluations, increasing the emphasis on how to accommodate individual differences in pupils and evaluate their achievement, and balancing the treatments in implementation supports and evaluations of the several components of school programs -- inputs, processes and outcomes.
- A generic model is recommended for supporting implementation of new or revised programs that could be adapted to reflect the degree and diversity of needs associated with the changes required. Sources of ideas for guidelines and procedures for a flexible model are suggested.

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4 August 1989

Dr. M. Thornton, Chairman
Curriculum Support Study Steering Committee
Alberta Education
EDMONTON, Alberta

Dear Merv:

FIELD STUDY TO DETERMINE TEACHER AND STUDENT NEEDS REGARDING CURRICULUM DOCUMENTS AND RESOURCES

Enclosed are the Complete Report and the Condensed Report on the study referenced above. Both reports contain the conclusions and recommendations of the authors - Eugene Torgunrud and myself. The differences between the two versions is the space devoted to the results sections. This is the component which is abbreviated in the Condensed Report.

A major finding and conclusion is that the curriculum implementation support documents provided by Alberta Education are needed, used and are generally appreciated by educators in the field. The provision of substantially augmented support documents recently distributed for the programs in Health, CALM 20 and Junior High School Mathematics are particularly appreciated. Other major findings, conclusions and recommendations relate to mechanisms and models for the delivery of the supports required for curriculum implementation. These important observations and recommendations are located in the final sections of the reports.

We are pleased to submit these reports for consideration by the Steering Committee and Alberta Education.

Sincerely,

RHODES EVALUATIONS

H.C. Rhodes

H.C. Rhodes

HCR/ch

Encl.

ACKNOWLEDGMENTS

A study of the type reported here requires the interest, cooperation and participation of a number of groups and many individuals. The investigators were fortunate in experiencing these benefits in abundance.

Sources of data included research articles on relevant topics. Ms. Christina Andrews and other Alberta Education library staff members provided these in quantity and often had to persist in securing information difficult to find and access. A major source of data was the more than three hundred interviews conducted at the schools selected for the survey. Teachers and administrators at these locations cooperated splendidly in communicating their perceptions and opinions. Other interviews were conducted by telephone and, for the advice and information provided, we thank central and regional office members of Alberta Education and central office educators from school jurisdictions and the Alberta Teachers' Association.

Members of various branches of Alberta Education were helpful at critical times during the study. Mrs. Ratan Lawrence and other staff of the Curriculum Support Branch provided tangibles and information when these were needed. The masses of school interview responses were key-punched and analyzed by the Information Services Branch and we acknowledge the fine service provided by Debbie Szybunka and Harry Henshaw.

Finally, the information, advice and reactions contributed by the Steering Committee are acknowledged. In addition, the assistance of Dr. Merv Thornton of the Curriculum Support Branch and Dr. John Burger of the Planning and Policy Secretariat was frequently provided and for this we are grateful. The contributions of Dr. Ann Harvey, who was the project coordinator during the planning and initiation stages, is acknowledged.

H.C. Rhodes

E.A. Torgunrud

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INTRODUCTION

THE CONTEXT FOR THE STUDY

The introduction of new or revised curricula and the distribution of relevant information about curriculum changes is prerequisite to, but not synonymous with, successful implementation. This is a truism long accepted within communities of educators. A review of the literature conducted as part of this study provided reinforcement to this notion. In this review of related literature it was noted that, in particular, Fullan and colleagues at the Ontario Institute for Studies in Education have written extensively on the topic of prerequisites to curriculum implementation. For example, in a chapter on the implementation of curricula by provincial governments in Canada by means of curriculum guidelines, Fullan (1982) has communicated:

> . . . And many teachers do not use them (p . 244). . . . The second aspect of the role of provincial ministries concerns how they go about introducing and following through on new and revised guidelines. . . . Even if the orientation goes well, the real implementation difficulties lie beyond the introduction (p. 245).

Alberta Education has provided support for the implementation of new and revised school programs by the following means, among others:

- Distribution of curriculum information about a program via the Program of Studies, the relevant Curriculum Guide and handbook (when applicable);
- distribution of lists of resource materials and, occasionally, annotated descriptions of these;
- consultation service from education consultants (a declining service);
- authorization of pupil learning resources with a discount applied to basic resources;
- audio tape/videotape production and distribution (sometimes via broadcast or telecast); and
- organizing or facilitating and conducting regional orientation workshops.

Alberta Education has demonstrated interest and concern about the efficacy of these means in aiding local school jurisdictions, school staffs and individual teachers implement successfully. Studies and papers by Hendren (1987), Thornton (1987), Wagner (1987), Wighton (1986), Bruner (1980), Downey and Associates (1975), MacKay and Doherty (1982), Patterson (1986), and Torgunrud et al. (1980) all addressed some aspect of support for implementing new or revised programs in Alberta. These and other sources describe and examine a medley of curriculum support procedures and products. It is acknowledged throughout that, while Alberta Education has a leadership role and responsibility in initiating and supporting implementation, the latter (i.e., implementation) is primarily a school jurisdiction and professional responsibility.

A description of the context in which support for curriculum implementation occurs in Alberta was provided by the Tri-Partite Committee on Inservice Education (Torgunrud et al., 1980). The major points made then are likely applicable today:

- curricula, once developed, must be implemented in ways which will advance the aims of the program, while being cognizant of the professional abilities of persons responsible for implementation and the availability of other educational resources;
- new curricula often demand of teachers a new way of looking at the task of instruction. These curricula may require that teachers deal with concepts and procedures as new to them as to the students (p. 4); and
- unfortunately, the structure and process used for curriculum development is not matched in implementation. Traditionally the responsibilities for implementation have been left with the classroom teacher, supported by system supervisors, professional association resources, or consultative assistance drawn from the universities of Alberta and Alberta Education (p. 7).

The survey reported in the remainder of this publication is a further indication of the interest and concern of Alberta Education regarding its role in providing support for curriculum implementation. It is not a report about implementation *per se*. Instead, the survey examined mainly the use of support publications by professionals with front-line responsibilities for implementation. In addition, other means of providing, maintaining and improving support receive attention.

THE TERMS OF REFERENCE FOR THE STUDY

The Terms of Reference (April 14, 1988) for this study entitled it a **Field Study to Determine Teacher and Student Needs Regarding Curriculum Documents and Resources**. It noted that the Curriculum Support Branch of Alberta Education had completed a review of the literature, and identified areas in which curriculum implementation and support could potentially be improved. It further indicated that the Curriculum Support Branch had proposed field studies to determine teacher and student needs relative to curriculum implementation and specific methods by which curriculum implementation and support could be improved.

PURPOSES OF THE STUDY

The purposes of the study are 1) to determine how effective are current mechanisms and resources for providing information and support required to implement curriculum, 2) to identify means for improving these mechanisms and resources, and 3) to identify the needs of educators in this area.

To further delineate the purposes for the study specific problem areas were listed relative to meeting the curriculum delivery/implementation needs of teachers and students and enhancing the support processes. The field study was to focus on needs and/or enhancements relative to the following:

1) documents and resources;
2) curriculum implementation models;
3) organizational relationships and communications between branches of Alberta Education, school jurisdictions and relevant interest groups; and
4) training required by teachers.

STUDY DESIGN

A study design which was generally consistent with the guidelines and alternatives outlined in the Terms of Reference was proposed and used. The major data collection procedures were face-to-face interviews with school-based educators and telephone interviews with personnel from Alberta Education (centrally and regionally), and Alberta Teachers' Association and school jurisdiction central offices. Since the survey questions were either completely open-ended or semi-structured the methodology could be best classified as qualitative in nature. The perceptions and opinions communicated by interviewees were, for the most part, either unsolicited or were elicited by very general questions.

For the interview portion of the survey aspects of the Responsive Evaluation Model formulated by Stake (1974, 1975) and the Responsive-Emergent Evaluation Model described by Guba and Lincoln (1981) were used. In these approaches the interviewees' concerns and issues are revealed and used to shape the organization of findings.

Other study procedures included a review of the research literature in relevant areas; namely, change processes and managing change in education, curriculum implementation, and inservice education of teachers. In this review, topics which had been reviewed for Alberta Education by others were largely excluded. Finally, "consultant analysis" procedures were employed which allowed inclusion of the comments and judgments of the survey team members as part of the qualitative data set.

PROCEDURES

As noted above the procedures used in the survey of curriculum support mechanisms and products were generally consistent with the alternatives suggested in the Terms of Reference. The detailed task specifications were linked to the relevant survey questions. The latter provided the organizing framework for all tasks associated with data collection.

SURVEY QUESTIONS

Specific problems and sub-problems to be addressed by the Contractor in the first phase of the study include:

1) How effective are current curriculum documents and resources, specified by the Steering Committee, in meeting the curriculum delivery/implementation needs of students and teachers?
    a) What are the curriculum delivery/implementation information needs of teachers and school administrators? Are these needs currently met from existing documents?
    b) How would the information needs of teachers and school administrators be affected by proposed changes to curriculum documents?
    c) What adjustments to curriculum documents and resources are needed to improve their effectiveness and efficiency?
2) How effective are the **curriculum implementation** models in use by Alberta Education in meeting student and teacher needs?
    a) What models have been used historically and are in use currently to support curriculum implementation in Alberta?
    b) What adjustments to curriculum implementation models are needed to increase the efficacy of curriculum implementation processes?
3) What organizational relationships and communications between the Curriculum Support Branch, other Department branches, school jurisdictions and relevant interest groups are needed to enhance curriculum delivery/implementation processes?
    a) What information collected by the Student Evaluation and Records Branch is relevant and how is it relevant to curriculum delivery and implementation processes?

b) What other information sources (such as local jurisdictions' annual reports) have relevance to judging the effectiveness of curriculum delivery/implementation processes?

c) What factors influence the effectiveness of the curricular relationship between the Minister and school jurisdictions in support of curriculum delivery and implementation processes?

d) What implications do study findings regarding curriculum delivery and implementation hold for curriculum development processes?

4) What **training** is required by teachers to enhance their curriculum implementation activities?

a) What pre-service and in-service mechanisms and strategies are best suited to support curriculum delivery and implementation processes?

INTERVIEW SCHEDULE DEVELOPMENT

Interview schedules and recording forms were developed, based on findings from the review of the literature, the questions listed above and the experience of the survey team. A draft was vetted with the Steering Committee and the revisions suggested were incorporated. Later drafts were piloted by try-outs with teachers and central office officials and further revisions made.

SELECTION OF SCHOOLS AND OFFICIALS

For the school-based interviews thirty-six schools were selected, six from each Alberta zone. The set of schools for each zone was comprised of two elementary schools, two junior high schools and two senior high schools. One member of each pair was selected at random and the other member nominated. The nominated schools were those thought to be particularly progressive and successful in implementing curriculum.

After permission was received from school jurisdictions principals of the schools selected were requested to select staff members to be interviewed and to schedule appointments (see letter in Appendix "A"). The respondents chosen in this fashion were intended to be heterogeneous with respect to experience and success in implementing the program assigned.

Department and school jurisdiction officials and consultants/supervisors were chosen from branches of Alberta Education and departments of school systems responsible in some fashion for supporting curriculum implementation. The school system personnel were from those jurisdictions which had schools selected for the survey. Alberta Education Regional

Office Consultants picked as interviewees were those with expertise in the target programs and geographically represented.

Finally, a number of Alberta Teachers Association members comprised of a staff officer and presidents of specialist councils, were contacted and interviewed. It was expected that this group would communicate from a provincial perspective but based on classroom concerns.

SCHOOL PROGRAMS CHOSEN

A delimited number of programs was picked to provide a context and focus for respondents' comments and ratings about curriculum guides and other support documents and resources. The criteria applied in selecting this set of programs were as follows:

1) Subjects assigned the most time for instruction and viewed as "basic" and "core" by the public (Language Arts/English and Mathematics).
2) Subjects which were new (CALM 20, a new core subject) or had been revised relatively recently and were thought to be taught by large numbers of teachers. The final set chosen was comprised of the following:

   ECS: (no program) Philosophy, Goals and Program Dimensions;
   Elementary: Health, Language Arts, Math, Drama;
   Junior High: Language Arts, Math, Science, Health and Personal Life Skills;
   Senior High: Reading 10, CALM 20, Math, English 13-23-33, Art 10-20-30, and French 10-20-30.

Early Childhood Services (ECS) Publications were rated and critiqued by ECS teachers who were on staff at a school selected. Three commented on the document which outlined philosophy and rationale -- **Philosophy, Goals and Program Dimensions for ECS.** In addition, a few commented about ten publications distributed throughout the years by the Early Childhood Services Branch of Alberta Education.

The Survey of Special Education Support Documents developed by Alberta Education questionnaire recording form was used to interview any guidance counsellors attached to schools selected for the survey. Six publications on general topics were listed on this questionnaire as well as fifteen which addressed more specific subjects. Advice was also solicited from counsellors about future document development.

CURRICULUM IMPLEMENTATION MODELS

Adjustments to current models and additional models for providing support to curriculum implementors were to be suggested by the investigators based on their professional judgments, relevant findings from the study and the review of the literature.

THE INTERVIEWS

Approximately 20 to 40 minutes had been scheduled by the principal for each school-based respondent and by the respondent for the telephone interview. For a large proportion of the school interviews the shorter time periods were too compressed to explore the perceptions about companion documents to curriculum guides. However, the compressed time frames were needed to accommodate teaching assignment responsibilities.

As noted in the comments about the choice of a qualitative evaluation model, a non-directive emergent-responsive approach was employed in the interviews (Guba and Lincoln, 1981; Stake, 1974 and 1975). Open-ended and semi-structured questions were used for the most part. As a consequence a very large volume of anecdotal commentary was recorded which required successive sorts, analyses and synthesis.

LIMITATIONS AND DELIMITATIONS

The major purposes for the survey were to determine the range of curriculum implementation needs facing Alberta educators and how best to meet them by use of curriculum support publications and resources. The approaches selected, size of respondent groups used and the type of data collected imposed certain limitations on the conclusions and generalizations which seem warranted.

Limitations and delimitations are as follows:

1) The data from interviews were current and retrospective perceptions about the topics being examined. Information from this source was of the self-report variety. Behavioral data on these matters were not collected.

2) Only one-half the schools were chosen using random sampling procedures. The remainder were nominated because of perceived atypical success in curriculum implementation. However, a follow-up comparison of the staff responses in the two types of schools showed no significant differences. As a consequence, representiveness can be assumed in the schools selected for the survey with respect to curriculum support needs, documents and resources.

3) Interviewees within schools were selected by principals, not chosen at random. In addition, only teachers who volunteered were interviewed. Unknown biases may have influenced these choices and representiveness cannot be assumed.

4) Although the size of the total group of school-based respondents was large (N = 300) most of the analyses were based on sub-groups of much smaller sizes e.g., N = 8 to 35. Small samples reduce the reliability of the findings identified with them and generalizations based on small numbers of responses need to be qualified accordingly.

5) A purposive, non-random selection of school programs was chosen. For each, curriculum support publications were commented on, rated and critiqued. Once

again, the potential lack of representiveness tempers generalizing to all publications.

The foregoing limitations and delimitations which result from the use of atypical respondents and subjective data simply support the caution that a status study, producing normative descriptions, has not been undertaken. Instead, an unknown portion of the findings describe atypical situations. However, since considerable variability in responses and heterogeneity in respondents characterized the data collection, the purposes of the study were well served. A rich fund of information was collected which provided direction to the investigators about retaining or changing the support provisions. The investigation team senses that the extremes in the areas of needs, successes and failures were well represented in the data gathered. It is this variability and heterogeneity which provides the outlier information so valuable in identifying **most** needs and solutions, not just the average and typical.

PROCEDURES: SUMMARY

PURPOSES OF THE STUDY

The main purposes of the study were 1) to determine the effectiveness of current mechanisms and publications in providing the support needed for the implementation of new and revised curricula and 2) to identify means for improving them. A preliminary purpose was to identify teacher and student needs relative to curriculum implementation.

METHODS

The Terms of Reference for the study outlined a number of research questions, answers to which would fulfill the purposes noted above. The research questions provided an organizing framework in planning and carrying forward the survey. A variety of data collection procedures were selected to provide appropriate information and answers to the questions specified. Chart 1 provides a summary overview of the methodologies employed in addressing various questions. The data collection procedures included 1) a review of the research literature on change processes in education, curriculum implementation, and inservice education of teachers; 2) school-based interviews of teachers and administrators in 36 schools (six from each zone - two each of elementary, junior and senior high school); 3)

Chart 1 A Summary of the Research Methodology.

Research Questions	Literature Review	School Interviews	Telephone Interviews	Consultant Analysis
Generalizations from the Research	●			
Current Curriculum Documents				
1(a) What are the curriculum implementation information needs of teachers and administrators? Are these needs currently met from existing documents?		●		
1(b) How would their information needs be affected by proposed changes to curriculum documents?		●		
1(c) What adjustments are needed to curriculum documents and resources to improve their effectiveness and efficiency?	●	●	●	
Curriculum Implementation Support Models				
2(a) How effective have the models in use by Alberta Education, historically and currently, been in meeting student and teacher needs?				●
2(b) What adjustments to support models are needed to increase the efficacy of curriculum implementation processes?	●			●
Inter-Organization Relationships and Communications				
3. What relationships and communications between the Curriculum Support Branch, other Department Branches, school jurisdictions and relevant interest groups are needed to enhance curriculum delivery/implementation processes?	●		●	
3(a) What information collected by the Student Evaluation and Records Branch is relevant and how is it relevant to curriculum delivery and implementation processes?			●	
3(b) What other information sources (i.e., Annual Reports) have relevance to judging the effectiveness of curriculum delivery/implementation processes?	●		●	●
3(c) What factors influence the effectiveness of the relationships between the Minister and school jurisdictions in support of curriculum delivery and implementation processes?	●		●	
3(d) What implications do study findings hold for curriculum development processes?		●		●
Training Required by Teachers				
4(a) What pre-service and in-service mechanisms and strategies are best suited to support their curriculum implementation activities?	●	●		

Offices, central office administrators and consultants in school jurisdictions, and a staff officer and presidents of specialist councils of the Alberta Teachers Association (26 in total); and 4) Consultant Analysis.

Limitations and delimitations are associated with the study as a consequence of 1) the subjective nature of the data collected via interviews, 2) the possible lack of representiveness in the school-based groups of interviewees (who were selected in non-random fashion by principals from pools of **volunteers**), and 3) lack of reliability (and hence representiveness) in some of the interview responses i.e., those based on extremely small subgroup numbers.

Benefits (consequents) of the methods used could be assumed since extreme opinions about needs, successes and failures related to curriculum implementation were represented in the data collected. Accordingly, the purposes for the study (which depended more on outlier situations as opposed to descriptions of the typical or normative) were well served.

FINDINGS, CONCLUSIONS, RECOMMENDATIONS

The findings from the study are based on the following information:

1) generalizations and conclusions derived from the reviews of the research on change processes and diffusion of innovations, curriculum implementation and inservice education of teachers;

2) interviews of teachers and administrators in thirty-six schools selected for the study;

3) interviews of administrators, supervisors and consultants in Alberta Education, central offices of school jurisdictions and a staff officer and presidents of relevant specialist councils at the Alberta Teachers Association; and

4) consultant analyses by members of the study team.

CHARACTERISTICS AND EMPLOYMENT STATUS OF RESPONDENTS

Table 1 reports the locations of employment for managers, consultants and supervisors who were not part of the school-based group. They were interviewed by telephone using a different interview questionnaire than the one used in schools. Eight were employed in school jurisdiction central offices, and six and seven in central branches of Alberta Education and Regional Offices of Alberta Education, respectively. The remainder were a staff officer and presidents of relevant specialist councils of the Alberta Teachers Association. The interview schedule and recording form is included in Appendix "A".

Table 1 Locus of Employment for Telephone Interviewees.

Location of Employment	Number	Percentage
School Jurisdiction central offices	8	30.8
Central branches of Alberta Education	6	23.1
Regional Offices of Alberta Education	7	26.9
Alberta Teachers Association	5	19.2
Totals	**26**	**100.0**

Table 2 portrays the positions held by respondents to the school-based interviews, their experience teaching and the subjects which provided the focus for their comments about support for curriculum implementation. Two hundred eighty-seven responded about support with respect to a specific school program. The remainder (25 counsellors, several ECS teachers and administrators) did not reply with a focus on a particular program. Instead they either responded generally (especially administrators) or critiqued a long list of Alberta Education publications.

Table 3 provides further information describing the school-based respondents. The degree of match between their university specialization (for secondary teachers) and teaching assignments are shown. About two-thirds of the junior high school staff reported a match between pre-service preparation and teaching assignments in language arts, mathematics and science. Nearly all of the senior high school teachers in English and Mathematics reported a match of assignment with either their major or minor.

Table 2 **Characteristics of the School-based Sample of Respondents.**

Position	Number	Percentage
Teacher	269*	81.8
Counsellors	25*	7.6
Administrators	35	10.6
Totals	**329***	**100.0**
Years Experience		
0 or 1	29	9.7
2 or 3	9	3.0
4 or 5	21	7.0
5 to 9	49	16.4
10 to 15	78	26.1
16+	112	37.5
Missing	1	0.3
Totals	**299***	**100.0**
Subject/Program Critiqued		
ECS	4*	1.3
1-6 Health	18	6.0
1-6 Language Arts	35	11.7
1-6 Mathematics	28	9.3
1-6 Drama	8	2.7
1-6 Art	5	1.7
1-6 Music	3	1.0
1-6 Social Studies	1	0.3
1-6 Science	1	0.3
7-9 Language Arts	31	10.3
7-9 Mathematics	26	8.7
7-9 Science	19	6.3
7-9 Health and PL Skills	20	6.7
7-9 Art	2	0.7
7-9 French Language Arts	1	0.3
7-9 Industrial Education	1	0.3
Reading 10	8	2.7
CALM 20	17	5.7
10-12 Mathematics	17	5.7
10-12 English	21	7.0
Art 10-30	15	5.0
French 10-30	14	4.7
I.O.P.	1	0.3
Drama 10-30	1	0.3
Social Studies 10-30	1	0.3
Totals	**299***	**99.7**

*Note: A number of ECS teachers and 25 counsellors responded to a separate interview schedule i.e., not identified with a specific program.

Table 3 **The Match between Major or Minor Preservice Preparation and Teaching Assignment in Secondary Core Subjects.**

Teaching Assignment	Major % (N)	Minor % (N)	Totals % (N)
7-9 Language Arts	40.0 (12)	25.9 (7)	61.2 (31)
10-12 English	80.9 (17)	9.5 (2)	90.4 (21)
7-9 Mathematics	38.4 (10)	32.0 (8)	69.2 (26)
10-12 Mathematics	64.7 (11)	17.6 (3)	82.0 (17)
7-9 Science	47.3 (9)	26.0 (5)	73.6 (19)

A total of 27 teachers (9.4% of total respondents) reported that they did not feel competent for their teaching assignment. The next section compares this group with those reporting themselves as "competent" relative to need for support and the utility of curriculum guides.

STATISTICAL SIGNIFICANCE OF GROUP DIFFERENCES CONCERNING IMPLEMENTATION NEEDS AND CURRICULUM GUIDES

Interviewees were grouped according to three types of criteria to facilitate analyses about differences that might exist relative to 1) the kinds and intensity of needs associated with curriculum changes, and 2) the understandability and utility of the relevant curriculum guides. The criteria applied in forming these groups were 1) Match or mis-match between self-reports about competence and assignment to teach the subject, 2) staff member in nominated or randomly selected schools (selection), and 3) years teaching experience.

Thirty-nine tests of statistical significance were conducted using Chi-square analyses and tests for differences between percents. Five of the comparisons indicated that differences were likely not due to chance factors; three between the Match mis-match and two in the Years' Experience comparisons.

Match/Mis-match comparisons indicated that teachers reporting they were teaching outside their area of competence (N = 27) found the curriculum guide more difficult to understand (than their self-reported "competent" counterparts) in two areas: Teaching Strategies and References and Referencing. They also found that latter area about references less useful ($p < .05$) than the comparison group.

A number of teachers have been assigned subjects for which they have not been prepared through formal training i.e., outside their areas of specialization. However, many of these feel "competent" and comfortable in providing instruction since they have, by various means, equipped themselves for the tasks involved. The nearly 10 percent who reported not feeling competent for the teaching assignment were populated with a large proportion who were teaching the subject for the first time.

One would expect the differences noted in Table 4 between this group and their self-proclaimed "competent" counterparts. Teachers facing a new assignment are relatively more dependent on the type and quantity of support provided about teaching strategies and information obtainable via references. Some of those assigned English 13-23 for the first time, for example, confided that they found the curriculum guide an excellent aid. However, they found the guide very "compressed" and, because of their deficiencies in training and experience, quite difficult. A number of readings and considerable study and reflection were required. In the end the guide met their needs.

The foregoing underlines the importance of curriculum guides and other support publications for teachers in these circumstances. They are a relatively small proportion of the total. However, assistance to them is crucial to ameliorate unavoidable deficiencies and difficulties.

Years-of-Experience comparisons revealed that the 10-15 year group found the reference information less useful than the comparison groups. The 16+ years group reported their university preparation least useful in helping them cope with change .

Table 4 Statistical Significance of Group Differences Concerning Implementation Needs and Use of Curriculum Guides.

Question	Comparison Group Characteristics		
	Match/Mis-match of Subject vs Competency	Selection: Nominated vs Random	Years Experience
IMPLEMENTATION CONCERNS			
2. Initial uncertainties? (% Yes vs. no)	ns	ns	ns
5. Persisting concerns? (% Yes vs. no)	ns	ns	ns
7. Later concerns? (% Yes vs no)	ns	ns	ns
4. Initial concerns resolved? (satisfaction rating scale)	ns	ns	ns
RATINGS RE: CURRICULUM GUIDES			
Teaching Strategies			
15. Difficulty level?	*	ns	ns
16. Usefulness?	ns	ns	ns
Managing Individual Differences			
22. Difficulty level?	ns	ns	ns
23. Usefulness?	ns	ns	ns
Evaluating Pupil Progress			
29. Difficulty level?	ns	ns	ns
30. Usefulness?	ns	ns	ns
References and Referencing			
36. Difficulty level?	**	ns	ns
37. Usefulness?	**	ns	*
RATING RE: UNIVERSITY PREPARATION			
48. Usefulness?	ns	ns	*

*$p < .05$.

**$p < .01$.

Note: ns = no significant difference

INITIAL AND PERSISTING CONCERNS ABOUT IMPLEMENTING THE MODIFIED (OR NEW) PROGRAM

INITIAL CONCERNS

What are the current curriculum implementation needs of teachers and school administrators? To answer this question the first part of the school interviews asked for descriptions of any qualms or uncertainties that were experienced when the educator first became aware that he/she would be teaching or administering the new program. Responses based on a sample of N = 287 are as follows::

16.0 LACK OF INFORMATION OR EXPERIENCE (30.8% of N = 287 related this type of concern).

16.1 Concern based on lack of information and resources (49.5% of the 30.8% noted above).

16.2 Concern about the unknown based on lack of information (4.3%).

16.3 Concern about the lack of resources required for the program (24.7%).

16.123 Concerns based on lack of information and/or resources (78.5%).

16.4 The overlap with religious education and the consequent need for coordination (1.1%).

16.5 The appropriate sequencing (4.3%).

16.6 Uncertainties about content and expectation (11.8%).

16.7 The specific skills students are required to develop.

16.8 Could/would most teachers appropriately teach all facets of the program? (2.2%).

16.9 The future status and credibility of the program (2.2%).

17.0 INSUFFICIENT SPECIFICITY (15.2% volunteered this type of concern).

17.1 Lack of specificity and/or practicality (34.8%).

17.2 Text didn't correlate with the curriculum (8.7%).

17.3 Time apportionments guidelines for strands or units not specified (4.3%).

17.4 Objectives not specified by grade level (23.9%).

17.5 I (we) didn't have a curriculum guide (10.9%).

17.6 Weighting guidelines needed to assist in evaluating (4.3%).

17.7 Curriculum guide lacks cross-references showing linkage of objectives to pages in students' texts (8.7%).

17.8 Articulation with ECS not described (4.3%).

18.0 PERSONAL OR PROFESSIONAL COMPETENCIES (26.5% of respondents communicated this type of concern)

18.1 Personal competencies (**23.7% of the 26.5% noted above**).

18.2 Personal or professional competencies for teaching and/or organizing for instruction (e.g., split grades, pairs instruction, etc.) (**31.3%**).

18.3 Concerns re: personal planning competencies (meeting the expectations of the curriculum) (**15.0%**).

18.4 Could/would teachers appropriately teach all facets of the program? (**7.5%**).

18.5 Can I evaluate properly? (**12.5%**).

18.6 Integration of strands/skills unclear (**3.7%**).

18.7 Human Sexuality theme in CALM 20 or Health (**2.5%**).

18.8 Too heavy (too much content to cover). More time needed (**2.5%**).

18.9 Lack of planning time for the teacher (**1.2%**).

18.1234 Personal/teaching/organizing competencies (**77.5%**).

19.0 CONCERNS RELATED TO PROGRAM CHANGE PER SE (14.2% of total respondents expressed this type of concern).

19.1 Changes in the program (**18.6% of 14.2% noted above**).

19.2 Deletions of content in the program e.g., algebra (**14.0%**).

19.3 Additions to the program e.g., problem solving (**4.7%**).

19.4 Would the specific skills children require be included and/or specified? (**4.7%**).

19.5 Would the extra resources required be available? (**7.0%**).

19.6 Weights of program areas to assist in evaluating (**7.0%**).

19.7 Human Sexuality (teaching demands) (**25.6%**).

19.8 Reduction in high school electives (a result of adding another mandatory course) (**4.7%**).

19.9 Uncertainty about the appropriateness of the change i.e., whole language approach (**14.0%**).

20.8 The program does not prepare students adequately for the next level (**2.9%**).

20.0 STUDENT CAPABILITIES AND INTERESTS (11.3% of respondents stated that pupil or community characteristics were a problem).

20.1 Students lack the capacity to cope adequately with the curricular demands and/or the materials fail to capture their interest (**18.6% of the 11.3% noted above**).

20.2 Student capabilities are frequently mis-matched with the program (**14.0%**).

20.3 The heterogeneous skill levels exhibited by my pupils pose a problem for me in teaching the program (**4.7%**).

20.4 Much of what was new in the program I was already doing (e.g., life skills instruction in H.Ec.) (4.7%).

20.5 How to evaluate pupil progress posed a problem (7.0%).

20.6 I like (and students like) the problem solving emphasis (7.0%).

20.7 Community reaction/response to the program required (requires) attention (25.6%).

20.8 The program does not prepare students adequately for the next level (2.9%).

20.123 Students' capabilities/interests/heterogeneity pose problems in teaching the program (37.2%).

HOW INITIAL CONCERNS WERE AMELIORATED

After the concerns and anxieties were listed, respondents were next asked to relate how these initial concerns were dealt with. The replies are enumerated within five categories:

21.0 PERSONAL INITIATIVES (37.7% of N = 287 interviewees reported undertaking personal initiatives).

21.1 Applied/used my own resources; self-initiated activities **(76.3% of the 37.7% noted above).**

21.2 Much of what was new we were already doing e.g., integration in the language arts (0.9%).

21.3 Prepared Annual Plan (2.6%).

21.4 I re-formated/translated/integrated/summarized all publications related to the subject to aid teachers (1.8%).

21.5 Used Correspondence Course lessons (0.3%).

21.6 Did my own thing (adapted and changed the course; did not follow the curriculum closely) (8.8%).

21.7 Used the student text (0.9%).

21.8 Used the Curriculum Guide (7.0%).

21.9 No solution possible to problem(s) associated with the curriculum change (1.8%).

22.0 PUBLICATIONS AND PRINT MATERIALS USED (23.5% reported these as support documents used at that time).

22.1 Alberta Education Publications **(12.7% of the 23.5% reported above).**

22.2 Student text (9.9%).

22.3 Curriculum Guide and/or Teachers' Resource Manual (46.5%).

Curriculum Guide (11.2%).

22.4 Publishers' teacher's guide.

22.5 Old text books or former curriculum guides/manuals (2.8%).

22.6 Other print materials (16.9%).

22.7 Local school jurisdiction's supplement to the Curriculum Guide (16.9%).

22.8 Video tape re: new program and the curriculum guide (4.2%).

22.9 Publications from other school jurisdictions (2.8%).

22.138 Alberta Education materials (63.4%). (Total of 22.1, 22.3 and 22.8 above).

23.0 INSERVICE (14.9% of interviewees mentioned some type of inservice activity as being supportive).

23.1 Inservice -- source not mentioned (57.8% of the 14.9% noted above).

23.2 Publisher's workshop (4.4%).

23.3 Alberta Education committee or pilot involvement (15.6%).

23.4 Local curriculum development participation (2.2%).

23.7 Personnel from other districts (6.7%).

23.8 Personnel from own district including school-based administrators (11.1%).

23.9 Correspondence Course (2.2%).

24.0 MISCELLANEOUS ASSISTANCE (7.9% of respondents mentioned assorted sources of support, i.e.)

24.1 Universities (4.2% of the 7.9% noted above).

24.2 Summer Credit Course (29.2%).

24.3 Correspondence Course lessons (4.2%).

24.5 Advice on modifying/individualizing instruction (8.3%).

24.6 Health Unit (16.7%).

24.8 School/jurisdiction's curriculum guide supplement (12.5%).

24.9 Student text (8.3%).

25.0 CONSULTATIVE ASSISTANCE (29.5% of total respondents mentioned consultation as supportive).

25.1 Consultative assistance generally -- sources not specified (1.1% of the above).

25.2 ROE Consultant, Assistant Superintendent or School Jurisdiction Consultant (13.5%).

25.3 Peer help (from fellow teacher) (65.2%).

25.4 ACSTA and A.Ed. personnel advice re: overlap of CALM 20 and Religion (1.1%).

25.5 Intervisitation (1.1%).

26.6 Local supervision (Principal, Vice-Principal, Dept. Head and including 23.6) (13.4%).

26.7 Health Unit nurse (3.4%).

26.8 Materials and advice from other school jurisdictions (3.4%).

SATISFACTION RATINGS: RESOLUTION OF INITIAL CONCERNS

The 167 respondents who reported concerns rated the solution(s) attempted as follows:

1	- very unsatisfactory	1.2%
2	- unsatisfactory	4.2%
3	- satisfactory in part	31.1%
4	- satisfactory	34.7%
5	- very satisfactory	28.7%

PERSISTING AND CURRENT CONCERNS ABOUT THE DELIVERY AND IMPLEMENTATION OF MODIFIED (OR NEW) PROGRAMS

Questions 5 and 6 of the interview questionnaire asked for listings of those concerns experienced earlier which have persisted to the present. Questions 7 and 8 asked the respondents to specify the nature of problems which were not apparent at the outset but which appeared later during implementation of the new or revised curriculum. Additional concerns which were communicated at other points in the interview are reported below as well.

The proportions of interviewers who responded "Yes" to experiencing qualms, uncertainties and concerns at various points during the implementation sequence are as follows: (actual numbers are reported parenthetically).

Question 1: **When you first became aware you would be teaching/administering the program did you have any qualms . . . 52.3% (158).**

The concerns communicated in response to Question 1 are listed in the previous section. The proportion responding to Question 5 indicates a reduction in the quantity of concerns with the passage of time and experience gained during implementation of the program.

Question 5: **Do any of your early concerns persist to this day? 27.2% (82).**

However, while many of the initial concerns diminished as information was acquired during implementation, new problems appeared and these were elicited by posing the next question.

Question 7: **Later, as you implemented (taught/administered) the new/revised program did other problems appear? 58.6% (177).**

The nature of the persisting problems described in response to Question 5 and late emerging concerns elicited by Question 7 are enumerated in the sections below.

16.0 LACK OF INFORMATION OR EXPERIENCE: PERSISTING PROBLEMS

16.3 Concern about the lack of resources required (**9.6% of those expressing concern**).

School subjects associated with this problem are as follows: (proportions of respondents identified with the subject who expressed the concern are reported within the parentheses).

1-6 Language Arts (14.3%); 7-9 Science (28.6%); 7-9 Health (25.0%); Art 10-20-30 (37.5%); and Drama 10-30 (100%). Only one respondent was associated with senior high school Drama -- a subject not included on the list selected for the survey.

16.5 The appropriate sequencing (**2.1%**).

School programs associated with concerns about sequencing instruction and the proportions of respondents (within the program) expressing the concern are as follows: 1-6 Language Arts (7.1%); and 1-6 Math (14.3%).

16.9 The future status and credibility of the program (**2.1%**).

1-6 Drama (66.7%) is the solitary program identified with these types of concerns.

17.0 INSUFFICIENT SPECIFICITY: PERSISTING PROBLEMS

17.1 Lack of specificity and/or practicality (**12.8%**).

This general statement along with 17.4 (objectives not specified by grade level) were the most frequently mentioned concerns in this category.

The general statement was mentioned in connection with these subjects: ECS (50.0%); 1-6 Language Arts (21.4%); 1-6 Art (50%); 7-9 Language Arts (7.7%); 7-9 Art (100% -- one respondent); 10-12 English (14.3%); and Art 10-20-30 (37.5%). A recurring concern expressed about Art was the unwarranted assumption that the physical facilities, equipment and learning resources would approach the ideal in all schools; hence the complaint about lack of practicality. Some Language Arts and English teachers asked for performance standards describing normative expectations identified with each grade level.

17.2 Time apportionments guidelines for strands or units are not specified (1.1%).

As a persisting concern this was mentioned only in connection with 10-12 Math (50.0%).

17.3 Text doesn't correlate with the curriculum (1.1%).

A junior high respondent (7.7%) was the only one to mention this mis-match (for 7-9 Language Arts).

17.4 Objectives not specified by grade level (10.6%).

This concern was one of two mentioned most frequently in this category (the other frequently mentioned was general lack of specificity and/or practicality). As a persisting concern it was mentioned in regard to 1-6 Language Arts (21.4%); 1-6 Math (14.3%); 7-9 Language Arts (15.4%); Reading 10 (33.3% -- one respondent); and 10-12 English (21.4%).

18.0 PERSONAL OR PROFESSIONAL COMPETENCIES: PERSISTING PROBLEMS

18.1 Personal competencies (2.1%).

Ability to cope with significant aspects of the revised curriculum was mentioned as a problem by only two teachers: one for each of 1-6 Math (14.3%) and 7-9 Science (14.3%).

18.2 Personal or professional competencies for teaching and/or organizing for instruction (e.g., split grades, pairs instruction, etc.) (4.3%).

Subjects presenting these persisting concerns for teachers were reported to be 7-9 Language Arts (15.4%); 7-9 Math (33.3% -- one respondent); CALM 20 (33.3%).

18.3 Could/would teachers appropriately teach all facets of the program? (2.1%)

There was a sharp diminution in the proportions expressing this as a concern on first hearing of the new/revised program. Mention currently is confined to 1-6 Math (14.3%); and 7-9 Health (25.0%).

18.4 Concerns regarding personal planning competencies (meeting the expectations of the curriculum (4.3%).

The proportions of respondents identified with specific subjects expressing these as persisting problems are as follows: 1-6 Drama (33.3%); 7-9 Health (25.0%); 10-12 English (7.1% -- one respondent); and French 10-30 (50% -- one respondent).

18.5 Can I evaluate properly? (7.4%).

Proportions of respondents communicating this as a persisting concern are as follows: 1-6 Language Arts (28.6%); 7-9 Language Arts (7.7%); CALM 20 (33.3%); and 10-12 English (7.1%).

Only one teacher expressed uneasiness about evaluating in each of the last three subjects listed above.

Later sections of the interviews revealed that evaluations of the several skills in Language Arts and the affective domain aspects of the Health and CALM 20 programs tended to be particularly problematical for teachers and administrators.

18.6 Integration of strands/skills is unclear (1.1%).

This was mentioned as a continuing concern for 1-6 Language Arts only by one educator (7.1% of those commenting about this subject).

18.7 Human Sexuality theme in CALM 20 or Health (0.0%).

This was voiced as an initial concern when interviewees first heard that the topic would be included in new curricula. However, the anxieties about teaching human sexuality apparently disappeared as experience was gained during implementation. No respondent mentioned it as a persisting problem.

18.8 Too heavy (too much content to cover. More time needed) (3.2%).

Only one educator responded about the quantitative demands of the revised program in each of 7-9 Language Arts (7.7%); CALM 20 (33.3%); and 10-12 English (7.1%).

18.9 Lack of planning time for the teacher (2.1%).

The same number of educators (two) who voiced this as an initial problem reported they were still experiencing it. The subjects taught by this pair are 1-6 Health (50%) and Art 10-30 (12.5%).

19.0 CONCERNS RELATED TO CURRICULUM CHANGE PER SE: PERSISTING PROBLEMS

19.1 Changes in the program (0.0%).

The very fact that the new or revised program would contain changes (frequently unknown prior to details being disseminated) caused apprehension among eight members of the sample (2.6%). This number (8) comprised 18.6% of the sample sub-group who recalled having initial concerns. However, the sub-group's general anxiousness about the unknown aspects of the new/revised programs disappeared as information was obtained and experienced acquired during implementation. As noted below concerns about some specific changes persisted over time.

19.2 Deletions of content in the program e.g., Algebra (3.2%).

This complaint persisted with three respondents (of the six who recalled it as an initial concern) all of whom taught mathematics: 7-9 Math (2 or 66.7%) and 10-12 Math (1 or 50.0%).

19.3 Additions to the program e.g., problem solving (0.0%).

Apparently familiarity with additions to revised programs eliminated concerns.

19.4 Would the specific skills children require be included and/or specified? (0.0%).

Here, too, familiarity with the recent program eliminated the concern experienced initially.

19.5 Would the extra resources required be available? (1.1%).

Only one respondent (in 7-9 Science, reported persisting ignorance about resources requirements.

19.6 Weights to be assigned to program areas to assist in evaluating (0.0%).

Those experiencing this as a concern on first hearing of new programs (one each in 7-9 Language Arts, 10-12 English, and Art 10-30) did not report having difficulties in assigning weights later. However, as will be reported in the section below and later sections on evaluation, it is a problem which emerges for others during implementation.

19.7 Human Sexuality (teaching demands) (1.1%).

Only one teacher (of 7-9 Health and Personal Life Skills) reported persisting problems associated with teaching human sexuality. This is a sharp reduction from the eleven who retrospectively reported feeling very apprehensive about this task on first hearing about it. In some cases the problem was eliminated by transferring teaching responsibilities to a Health Unit nurse.

19.8 Reduction in high school electives (a result of adding another mandatory course) (0.0%).

The two respondents who recalled this as a concern when they first heard that CALM 20 would be a mandatory course did not report this as a persisting problem.

19.9 Uncertainty about the appropriateness of the change e.g., Whole Language Approach (4.3%).

A slight reduction in numbers reporting this as a concern was reported (from 6 to 4) and these were mainly teachers of Language Arts and 10-12 English.

20.0 STUDENT CAPABILITIES AND INTERESTS: PERSISTING PROBLEMS

A significant proportion (7.3%) of the total sample of respondents gave voice to continuing concerns related in some fashion to characteristics of pupils or attitudes of their parents. A one-third reduction for this type of problem occurred over time as respondents gained experience during implementation. A small decrease (from 11.3% to 7.3%) was reported.

20.1 Students lack the capacity to cope adequately with the curricular demands and/or the materials fail to capture and hold their interests (7.1%).

Numbers of interviewees reporting this as a continuing concern increased from 4 to 7 and these were mentioned relative to the following subjects: ECS (1); 1-6 Music (2); 7-9 Language (1); 7-9 Science (2), and 10-12 English (1).

20.2 Student capabilities are frequently mis-matched with the program (8.5%).

There are overlaps with this type of concern with 20.1 above with respect to low aptitude pupils. However 20.2 also includes reference to those whose abilities are not being sufficiently challenged or who find the learning resources demeaning.

Subjects involved and numbers/percentages of respondents identified with each subject who mentioned these as concerns are as follows: 1-6 Math (2, 28.6%); 1-6 Art (1, 50.0%);

1-6 Music (1, 33.3%); Reading 10 (1, 33.3%); 10-12 English (2, 14.3%); and Art 10-30 (1, 12.5%).

20.3 The heterogeneity of skill levels exhibited by my pupils pose a problem for me in teaching the program (5.3%).

Subjects, numbers and percentages (of respondents identified with specific subjects) who found the variability within student groups a persisting kind of problem are these: 1-6 Math (1, 14.3%); 7-9 Language Arts (2, 15.4%); Reading 10 (1, 33.3%); 10-12 English (1, 7.1%).

20.4 Much of what was new in the program I was already doing i.e., Life Skills instruction in Home Economics (1.1%).

This was a complaint voiced by a single person teaching CALM 20 who felt that the redundancy led to boredom for affected students.

20.5 How to evaluate pupil progress poses a problem (0.0%).

No respondent who had mentioned evaluating pupils as an initial concern reported it as a persisting problem. However, later sections of this report reveal this as a significant and challenging task and a major concern in some subjects. For many, evaluating pupils appeared as a problem later during the implementation sequence.

20.6 I like (and students like) the problem solving emphasis (0.0%).

This commendation was not repeated in response to the follow-up questions.

20.7 Community reaction/response to the program requires attention (1.1%).

Apparently attention was directed at most problems of this type as only one respondent from the group reporting it as an initial concern mentioned it as in continuing difficulty.

20.8 The program does not prepare students adequately for the next level (0.0%).

This response had been recorded as an early concern by one respondent relative to 7-9 Mathematics. It was not repeated as a response to the follow-up questions.

INITIAL NEEDS AND UNCERTAINTIES: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

A sample of school-based educators responded to interview questions about initial concerns they experienced upon hearing that they would be required to implement a new or revised school program. They were asked next to relate the services or products accessed or activities undertaken in response to these concerns. Finally, those experiencing uncertainties at the outset were asked to recall which of these early needs persisted to the present. The sample numbered 302 and was comprised of 265 teachers, 2 counsellors and 35 school-based administrators. Summaries of their responses about initial needs and uncertainties and how they were dealt with are tabulated and reported below.

Table 5 indicates that over one-half of the sample (52.3%) communicated a total of 296 mentions of initial concerns. The incidence of these was reduced substantially since only 94 mentions were recorded as persisting problems. About one-quarter of the sample (27.2%) reported that one or more of their original needs remained unmet. However, far fewer specific needs remained since the average number per respondent was reduced from 1.87 to 1.1. These reductions are a consequence of enhanced familiarity with the program and the various supporting activities and products accessed by school-based personnel.

How were your concerns dealt with? was the question posed immediately after the listing of initial needs. Table 6 indicates the proportions and numbers of members of the sample who credited each category of activity or support service or product as helpful in meeting needs. The substantial reduction in unmet needs (from 296 mentions to 94) portrayed in Table 5 are attributable to the sources of aid identified in Table 6.

The most frequently mentioned sources of support for some of the foregoing were as follows: publications and print -- Alberta Education materials (63.4%), Publishers Teacher's Guides (46.0%), and local school jurisdictions' supplements to the Curriculum Guide (16.9%); Miscellaneous Assistance -- summer credit courses (29.2%), Health Units (16.7%), and (again) local school jurisdictions' supplements to the Curriculum Guide (12.5%); and Consultative Assistance -- peer help from fellow teachers (65.2%). Nearly two-thirds (63.4%) reported that

Table 5 Initial Needs and Uncertainties about Curriculum Change: Then and Now.

		Initial Concern		Persisting Concern	
Category of Concern		Proportion of Sample (N = 302) %	No. of Mentions	Proportion of Sample %	No. of Mentions
16.0	Lacks of Information or Experience	30.8	93	4.3	13
17.0	Insufficient Specificity	15.2	46	7.9	24
18.0	Personal or Professional Competencies	26.5	80	8.2	26
19.0	Change Related to Program Changes	14.2	43	3.0	9
20.0	Student Capabilities and Interests	11.3	34	7.3	22
	Totals		296		94
	"Yes" to having a need	52.3	158	27.2	82
	Concerns per respondent		1.87		1.1

Table 6 How Initial Concerns were Reduced or Eliminated.

	Beneficiaries from the Sample of Respondents	
Activity, Support Service or Product	Proportion (N=302)	Number
21.0 Personal Initiatives	37.7%	114
22.0 Publications and Print Materials	23.0	71
23.0 Inservice	14.9	45
24.0 Miscellaneous Assistance	7.9	24
25.0 Consultative Assistance	29.5	89

their initial concerns were dealt with "very satisfactorily" (28.7%) or rated resolution as "satisfactory" (34.7%).

Conclusions and Recommendations

Conclusions about initial needs seem quite clear from the responses compiled from the first questions posed in the survey and from generalizations obtained from our review of the research literature on the processes of change. The evaluators conclude:

C 1.1 That a large proportion of needs and apprehensions experienced early about program changes are being addressed appropriately at present. Hence, in quantitative terms, problems originating at this point in the implementation sequence could be assigned relatively low priority;

C 1.2 That, notwithstanding C 1.1 above, and applying qualitative criteria (those needs which remain unmet are of great practical significance to the teachers and pupils affected), an even greater reduction seems warranted;

C 1.3 That many of these needs can be reduced or eliminated more quickly than at present;

C 1.4 That, for a majority of the needs reported, the support required is simply the provision of, or access to, relevant information;

C 1.5 That the research indicates that the acquiring of the requisite information and knowledge about any curriculum change is a necessary first stage in the Innovation - Decision Process sequence documented by Rogers (1983);

C 1.6 That the research has documented that the mass media (e.g., news bulletins, guides, etc.) are relatively more appropriate, effective and feasible at the knowledge stage of the implementation sequence;

It is recommended:

R 1.1 That existing "one-shot" regional inservices for disseminating information about curricular change be provided, as at present;

R 1.2 That a version of each of these "one-shot" regional inservices be prepared (for each significant curriculum change) in the form of an inservice kit comprised of a videotape and accompanying hard copy printed text and set of visuals, and made available for local use;

R 1.3 That existing communication channels and media be retained, except that distribution must occur well in advance of implementation dates and delays must be eliminated;

R 1.4 That relevant information about curriculum change be filed for easy access by school personnel via the various technologies as they become available e.g., in fashions similar to the Response Line Service recorded messages currently provided by Alberta Education via telephones, the ASPEN Alberta Special Education Network using school microcomputers, electronic bulletin boards and the systems developed for distance education.

Additional conclusions about meeting initial needs are as follows:

C 2.1 That the survey revealed peer help as the most frequently accessed external source of aid for meeting initial needs and reducing early anxieties;

C 2.2 That the research literature concerning the change process revealed that interpersonal and localite channels of communication are relatively most efficacious at the persuasion stage of the implementation sequence (but also effective and convenient to use at the knowledge stage);

C 2.3 That the quality of help provided by peers is a function of the qualities (e.g., knowledge, consulting and leadership skills) possessed by the service providers;

It is further recommended:

R 2.1 That peer networking as a means of acquiring curriculum change information be encouraged and facilitated at all levels (school, jurisdiction, regional and provincial);

R 2.2 That peer networking be accorded additional recognition and status and be considered for possible inclusion in all activities relating to assisting implementers to cope with curriculum change;

R 2.3 That peer networking be exploited by using appropriate current and future technologies e.g., currently available technologies such as the telephone (conference calls) school microcomputers (electronic bulletin boards, electronic networks such as ASPEN).

R 2.4 That peers providing assistance be selected, trained and supported (as required) to enhance the quality of service provided.

NEEDS APPEARING DURING IMPLEMENTATION OF MODIFIED (OR NEW) PROGRAMS

After recording responses about the needs apparent at the outset, the interviewers next set of questions dealt with problem areas uncovered during implementation of the new or revised program. The specific nature of these and the program implementers' recommendations about dealing with them were recorded.

Compared to the responses about initial needs reported in the previous section, considerably more were recalled which were based on the experiences encountered during implementation. These numbers were augmented by including observations and suggestions communicated in later sections of the interview and at the end. The 'brain-storming' atmosphere created in some interviews and the probing by interviewers apparently induced many belated responses about specific or general needs and how to cope with them.

Later, as you taught /administered the new/revised program did other problems appear?

Two hundred eight-seven educators responded to this question. Over one-half (61.7%) of this group answered "Yes". Table 7 portrays their numbers and proportions according to the subject about which they were experiencing one or more difficulties. For those subjects ranked lowest in difficulty it is noteworthy that two have been in place for the longest time (1-6 Language Arts and 7-9 Science) and the remainder are considerably more recent with their introduction accompanied by supplementary support documents such as teacher resource manuals or extensive orientation inservice.

THE NATURE OF IMPLEMENTATION DIFFICULTIES

Since many of the concerns reported about implementation were the same or similar to those communicated earlier about initiating programs, it seemed appropriate to cluster them using the same categories. Additional types of problems were mentioned about implementation and these are grouped using other category labels.

Table 7 Numbers and Proportions of Members Reporting Implementation Difficulties for Various Programs.

Above-average Difficulty			Below-average Difficulty		
	Implementers			Implementers	
Subject	No.	%	Subject	No.	%
ECS	3	100.0	1-6 Language	20	60.6
French 10-30	10	83.3	10-12 English	12	60.0
10-12 Math	13	76.5	7-9 Health	11	57.9
7-9 Language	19	65.5	Art 10-30	8	57.1
Reading 10	5	62.5	CALM 20	9	56.3
1-6 Math	17	63.0	7-9 Science	9	50.0
7-9 Math	16	61.5	1-6 Health	7	43.8
			1-6 Drama	1	12.5

16.0 LACK OF INFORMATION/EXPERIENCE/RESOURCES (5.9% of the total group reported this type of content; N = 287)

16.3 Concerns based on lack of resources for the program (4.9% of the total sample).

In the "deficiency" category lack of resources remained a major problem.

16.12 Lack of Information (0.7%).

Only two members of the total sample mentioned lack of information as a problem area -- a marked reduction from the experience earlier.

16.4 The overlap with religious education (0.35%).

The single respondent continued to see this as a problem re: CALM 20.

17.0 **INSUFFICIENT SPECIFICITY** (10.8% of the total sample of N = 287 expressed lack of specificity and/or practicality as a problem area. This was a one-third reduction from the initial reactions.

17.1 Lack of specificity and/or practicality (2.8% of the total)

The subjects said to be characterized by this problem were: 1-6 Language Arts (3 members, 8.6% of the Language Arts total); 7-9 Science (2, 10.5%), and one member for each of 1-6 Music (33.3%), Reading 10 (12.5%), and 10-12 English (4.8%).

31.4 Ambiguities and lack of specificity about how much to teach i.e., depth (3.8% of the total sample voiced this type of concern).

The number of members and respective proportions mentioning this for each subject were: 1-6 Language Arts (3, 8.6%), 7-9 Language Arts (2, 6.4%), 10-12 English (4, 19.0%), 1-6 Music (1, 33.3%), and 7-9 Science (1, 5.3%).

42.5 Statements of objectives need to be improved (3.5% of the total sample).

Subjects and the number and proportions within each who had this concern about objectives were: 1-6 Language Arts (2, 5.7%), 10-12 English (3, 14.2%), and one member each for 1-6 Math (3.6%), 1-6 Music (33.3%), 7-9 Language Arts (3.2%), 10-12 Math (5.9%), and Art 10-30 (6.7%).

5.34 Integration using the holistic language approach could be made more explicit in 'Focus on Learning'.

One member of the sample mentioned this concern about 7-9 Language Arts (3.2%).

5.59 Questions about time allotments for themes e.g., 4 months for feelings/emotions/self-concept is TOO LONG. Themes 2 and 3 are overlapping and redundant.

One member of the sample felt strongly about these matters relative to 1-6 Health (5.6%).

18.0 **PERSONAL OR PROFESSIONAL COMPETENCIES** (6.5% of the total sample expressed concern about their own abilities to cope with one or more aspects of the subject being critiqued; N = 287).

18.1 Personal competencies (1.7% of the total)

One respondent listed this as a problem for each of the following subjects: 7-9 Language Arts (3.2%), 7-9 Math (3.8%), 7-9 Health (5.0%), 10-12 Math (5.9%), and Art 10-30 (6.7%).

18.2 Personal or professional competencies for teaching and/or organizing for instruction (e.g., split grades, pairs instruction, etc.) (0.7% of the total).

Only two members voiced these kinds of skills as problematic, one for each of 1-6 Language Arts (2.8%) and 7-9 Home Economics (100.0%).

18.3 Concerns re: personal planning competencies relative to meeting the expectations of the curriculum (1.7% of the total shared this concern).

Two respondents mentioned planning skills relative to 7-9 Language Arts (6.5%) and one noted this competency as a problem for each of 1-6 Language Arts (2.9%), 7-9 Science (5.3%), and 7-9 Art (50.0%).

18.4 Could/will teachers appropriately teach all facets of the program?

One administrator (0.35% of the total sample) voiced this as a concern in relation to 7-9 Mathematics.

18.5 Can I evaluate properly?

Two teachers (0.7% of the total) expressed concern about evaluating, one for each of 1-6 Social Studies (100%) and 7-9 Health (5.0%).

18.6 Integration of strands and skills unclear.

At this point in the interview only two teachers (0.7%) offered integration as a problem to them, one in each of 1-6 Math (3.6%) and 10-12 English (4.8%).

31.6 Working in pairs has not been successful in my class.

Two teachers (0.7%), one in each of 1-6 Math (3.6%) and 7-9 Math (3.8%) indicated that this approach wasn't working well.

19.0 CONCERNS RELATED TO PROGRAM CHANGES PER SE (7.7% of N = 287 expressed concern).

19.1 Concerned about changes in the program (unspecified).

One respondent (0.35%) registered a complaint and this was in 10-12 English (4.8% of that group).

19.4 The specific skills children require are not included and/or specified.

Only one educator (0.35%) expressed this concern. The complaint referred to content in 1-6 Mathematics (3.6%).

19.7 Human Sexuality (teaching demands). Three (1.0% of the total sample) generated this concern during implementation of the new programs on 1-6 Health (5.5% of that group) and 7-9 Health and Personal Life Skills (2 teachers, 10.0% of the group).

19.8 Reduction in high school electives (a result of adding another mandatory course).

A single teacher (0.35% of the total sample) expressed this as the cause for declining attendance in senior high school drama (100.0%).

19.9 Uncertainty about the appropriateness of the change i.e., whole language approach for language arts (3.1% of total).

A total of nine educators expressed uncertainty and/or disagreement about curriculum change. Numbers and proportions within specific subjects were: 1-6 Language Arts (3, 8.6%), 7-9 Language Arts (2, 6.5%), 10-12 English (3, 14.3%), and 1-6 Health (1, 5.6%).

42.2 Redundancies occur too often as pupils advance through the grades (7.3% of the total sample).

Excessive redundancies in the subject being critiqued was voiced as a concern relatively frequently in the context of discussions about curriculum change. Respective numbers and proportions of complainants for each of various subjects were as follows: 7-9 Health (5, 25.0%), 10-12 English (3, 14.3%), 1-6 Health (2, 11.1%), 1-6 Art (2, 40.0%), CALM 20 (2, 11.8%), Art 10-30 (2, 13.3%), 1-6 Music (1,m 33.3%), 7-9 Math (1, 3.8%), 7-9 Science (1, 5.3%), 7-9 Home Economics (1, 100.0%), and French 10-30 (1, 7.1%).

The most frequently mentioned concern relative to 7-9 Health and Personal Life Skills and CALM 20 was a redundancy on topics about self-concept. Care and caution was advised in sequencing instruction across the grades in this area and avoiding repetitive use of audio-visual and other student learning resources.

20.0 STUDENT CAPABILITIES AND INTERESTS (25.1% of the total sample expressed concerns involving pupils or parents; N = 287).

20.1 Students lack the capacity to cope adequately with the curricular demands and/or the materials fail to capture their interests (5.6% of the total sample).

The concern that significant numbers of pupils either lacked the capacity and/or interest in the topics or materials to succeed as learners was mentioned with respect to ten subjects. The numbers of respondents and the proportions of the within-subject totals they represent were as follows: 1-6 Language Arts (1, 2.9%), 1-6 Math (2, 7.1%), 1-6 Music (1, 33.3%), 1-6 Drama (1, 12.5%), 7-9 Language Arts (1, 3.2%), CALM 20 (1, 5.9%), 7-9 Home Economics (1, 100.0%), Reading 10 (1, 12.5%), 10-12 English (4, 19.0%), Art 10-30 (3, 20.0%), 7-9 Art (1, 50.0%), Drama 10-30 (1, 100.0%), and French 10-30 (1, 7.1%).

The subjects mentioned most frequently as posing problems for students due to lack of pupil aptitude and/or inappropriate learning resources, were senior high school English and Art. The remaining complaints of this nature were widely and evenly dispersed.

20.2 Student capabilities are frequently mis-matched with the program (2.8% of total respondents).

Mention that significant numbers of pupils either are not sufficiently challenged or are incapable of mastering the courses was made with respect to five subjects. Numbers and percentages of educators commenting in these ways for the selected subjects were as follows: 1-6 Math (1, 3.6%), 7-9 Language Arts (1, 3.2%), 10-12 Math (2, 11.8%), 10-12 English (1, 4.8%), and Art 10-30 (2, 13.3%).

Comments reported below note that more enrichment ideas and materials are needed for some (32.6%) and remediation support for others (32.7%).

20.3 The heterogeneous skill levels exhibited by my pupils pose a problem for me in teaching the program (4.2% of the total sample volunteered an observation of this type).

Nineteen comments concerning heterogeneity among pupils were, except for French, fairly evenly distributed over ten subjects as follows: 1-6 Health (1, 5.6%), 1-6 Language Arts (2, 5.7%), 1-6 Math (2, 2.6%), 7-9 Health (1, 5.0%), 7-9 Language Arts (2, 6.5%), 7-9 Math (2, 7.8%), Reading 10 (1, 12.5%), CALM 20 (1, 5.9%), French 10-30 (4, 28.6%), Social Studies 10-30 (1, 100.0%), and 7-9 Industrial Education (1, 100.0%).

The teachers of French noted that highly variable entry level skills were the norm since pupils came from a variety of feeder schools and from programs of varying length and quality.

Once again, the upcoming sections on accommodating individual differences are germane to these topics.

20.5 How to evaluate pupil progress poses a problem, for me.

Only three (1.0% of the sample of teachers) noted that the heterogeneous nature of their classes caused difficulties in evaluating individuals. These complaints were delimited to junior high school subjects, one teacher from each of the following: 7-9 Language Arts (3.2%), 7-9 Science (5.3%), and 7-9 Art (50.0%).

32.6 Enrichment ideas and materials are needed (1.7% of the total sample).

Subjects for which enrichment support was sought were these (numbers and proportions of respondents for each subject parenthesized): 1-6 Math (2, 7.1%), 1-6 Drama (1, 12.5%), 10-12 Math (2, 11.8%).

32.7 Program is unsuitable for remedial instruction (1.0% of total).

Three teachers noted that their subject was inappropriate for providing remediation: 7-9 Health (1, 5.6%), and Reading 10 (2, 25.0%). Two teachers of Reading 10 (25.0%)

suggested that a program and guide be provided for senior high school level remedial reading.

5.16 Need more direction and materials for teaching slow learners and special needs students (1.7% of total respondents).

One teacher in each of the following subjects remarked that direction and materials for teaching slow learners were needed: 1-6 Health (5.6%), 1-6 Language Arts (2.9%), 1-6 Math (3.6%), 1-6 Drama (12.5%), and 10-12 English (4.8%).

5.50 Need a four-year high school program to make possible a broadly-based program for students.

One teacher of Drama 10-30 suggested lengthening the time requirements for the high school diploma to ensure a broader program i.e., to ensure inclusion of more electives.

Teaching and Working Conditions (25.5% of the total sample; N = 287).

At some point in the interview over seventy of the educators communicated about one or more aspects of working conditions which they viewed as problematic. Most of these comments were about excessive workloads and lack of time to perform certain tasks.

31.9 There is insufficient time available to administer the Diagnostic Reading Test (1.7%).

Five teachers, all in 1-6 Language Arts (14.3% of that group) indicated that the lengthy administration time required prevented them from administering the test. All had received training in administering the instrument and interpreting/using the results.

32.2 Too much is expected -- the program includes too many objectives, thus I can't cover the course (7.7% of the total sample expressed this concern about the quantitative demands in their particular subjects.

A relatively large proportion of the teachers of CALM 20 (4, 23.5%) viewed the course as too heavy. The numbers and proportions of respondents about other subjects were: 7-9 Language (4, 12.9%), 10-12 English (3, 14.2%), Art 10-30 (3, 20.0%), French 10-30 (2, 14.2%) and one response for each of 1-6 Language Arts (2.8%), 1-6 Art (20.0%), 7-9 Health (5.0%), 7-9 Art (50.0%), 10-12 Math (5.9%), and Drama 10-30 (100.0%).

37.7 Workload is too heavy for the teacher (6.3% of the total sample complained about teacher workload for their subject).

Teachers of CALM 20, Art, Language Arts and Junior High Math and Science were the main ones giving voice to concerns about workload in their subject. Specific numbers and proportions of complainants within each subject were as follows: CALM 20 (2, 11.8%), 1-6 Language Arts (2, 2.9%), 1-6 Art (1, 20.0%), 7-9 Language Arts (3, 10.4%), 7-

9 Math (2, 7.6%), 7-9 Science (3, 15.8%), 7-9 Art (1, 50.0%), Reading 10 (1, 12.5%), Art 10-30 (1, 6.7%), 7-9 Health (1, 5.0%), and 1-6 Math (1, 3.6%).

38.5 Paucity of appropriate role models; e.g., teachers must act as surrogate parents (one respondent, 0.35% of the total).

Deficiencies in society and the family posed extra responsibilities for teachers was the comment by one teacher in 7-9 Health (5.0%).

5.11 There is not enough time during the school day to meet pupils needs properly (1.7% of the total sample).

Two teachers of CALM 20 (11.8%) and one in each of 1-6 Health (5.5%), 7-9 Language Arts (3.2%) and 7-9 Math (3.8%) voiced this complaint.

5.13 Time, energy and enthusiasm contributed by a caring staff are important.

One administrator (0.35% of the total sample) contributed this observation.

5.14 Teachers with the least expertise are often assigned to second or third level courses.

This comment was from a single educator (0.35% of total).

5.18 Teachers are overloaded (3.8% of the total sample).

All of the respondents (11) who contributed this observation about other teachers (not necessarily about themselves) were identified with 1-6 Language Arts (31.4% of that group).

PUPIL LEARNING RESOURCES

(18.8% of the sample commented; N = 287).

Another type of need expressed at various points in the interview was with respect to student texts, hands-on manipulatives and various aids for use in instruction.

32.5 Need more 'hands-on' materials for use by pupils (5.2%).

A total of fifteen teachers in the math-science areas expressed a need for their school jurisdiction to provide more manipulative materials for student use. The subjects and numbers/proportions of respective respondents were 1-6 Math (6, 21.4%), 7-9 Math (7, 26.9%), and 7-9 Science (2, 10.5%).

37.2 There are mis-matches between the curriculum and the student text (9.2%).

Twenty-two teachers, mainly in the secondary math and french areas, voiced complaints about the lack of articulation between texts and the curriculum guide or other materials, and voids or errors in the text. The subjects referred to and the numbers/proportions of complainants within each subject were as follows: 10-12 Math (8, 47.0%), French 10-30 (6, 42.8%), CALM 20 (2, 11.8%), 7-9 Math (3, 11.5%), 7-9 Science (2, 10.5%), and 1-6 Math (1, 3.6%).

38.7 Need more teaching materials e.g., posters for use in Art classes (1.0%)

Three teachers mentioned requiring more poster material in Art 10-30 (20%). Laser disc equipment was thought to be beyond the financial resources of the school jurisdictions surveyed.

42.1 Change the text or correct errors (3.1%)

Nine teachers from the sample, many of whom expressed concern about the incongruency between curriculum and text or about errors in the latter volunteered these suggestion. Teachers of CALM 20 (4, 23.6%) mentioned that a student text was too simple and demeaning for most of their students and should be replaced by more challenging and interesting volumes. The other subjects and the respective numbers/proportions are: 7-9 Science (1, 5.3%), 10-12 Math (1, 5.9%), French 10-30 (1, 7.1%), and Drama 10-30 (1, 100%).

5.31 The resource base for teaching human sexuality needs to be expanded.

This need was voiced by two teachers of 7-9 Health and Personal Life Skills (10.0% of that group).

5.41 Change text since continuity is lacking.

Two teachers in 7-9 Science (10.5%) voiced this concern about the grade 8 text.

5.47 Resources are difficult to find and expensive.

This difficulty was mentioned by one teacher in French 10-30 (7.1%). Elsewhere, teachers of Art noted that the audio-visual and physical setting recommendations for their course were extremely expensive.

CURRICULUM DESIGN OBSERVATIONS AND SUGGESTIONS

(12.9% of 287 remarked about curriculum design and development)

The survey was not designed to access information about the design of curricula. Instead, the focus was directed at services and publications used to support the delivery and implementation of new or revised curricula subsequent to their development. However, a few interviewees commented about development and design of new or revised programs. Many of their comments are subsumed within categories reported elsewhere: e.g., Program Change Per Se -- changes in the program, deletions/additions, uncertainty about the appropriateness of change, redundancies; Students Capabilities and Interests -- many lack the capacity to cope with curricula demands; and Teaching and Working Conditions -- Time lacking to administer the Diagnostic Reading Test (it is too long), too much is expected (I can't cover the course).

In addition to the foregoing, nine educators, one in each of nine subjects, commented about the development or design of a particular program:

1. Process skills are overly emphasized relative to cognitive understandings: 7-9 Science (5.3%).
2. Reduce the breadth of coverage and increase the depth: CALM 20 (5.9%).
3. The program is very repetitive. I question whether all this redundancy is needed: 7-9 Math (3.8%).
4. Need more discussion at the outset with professionals in the field about curriculum development. Dialogue with, and solicitation of, input from the field should occur at the earliest stages: I.O.P. (one administrator).
5. Emphasize development of specific skills in the lower grades: 7-9 Language Arts (3.2%).
6. I piloted Art 11 and abandoned it -- too much history and too little art: Art 10-30 (6.7%).
7. There is need for more spontaneity, flexibility and enjoyability. The program is a sharp contrast to Language Arts on these features: 1-6 Art (20.0%), 1-6 Music (33.3%).
8. Increase the emphasis on listening and speaking: French 10-30 (7.1%).

In addition to the comments above about specific programs, a number of unsolicited general statements about roles for Alberta Education were communicated during several interviews:

9. Only highly competent skilled professionals with field experience should develop and design curricula (one respondent).

10. Alberta Education is no longer leading -- it is simply reacting to changes as they occur and to developments and initiatives by school systems (4 respondents contributed this type of statement).

11. Alberta Education should become a broker and operate as a clearing house for locally developed materials (5 interviewees suggested a clearing house service).

12. We need ear-marked inservice grants (three respondents).

13. More information about curriculum and its implementation is necessary but not sufficient. ACCESSIBILITY and ACCESSING BY USERS are also essential.

    Alberta Education must facilitate (one respondent).

14. Guidelines for apportioning instructional time among strands and units should be provided by Alberta Education for all subjects.

    Thirteen educators (4.5% of the total) expressed a need for suggested time apportionments. The following subjects were mentioned in this regard: 1-6 Language Arts (3 mentions, 8.5% of that group); 1-6 Math (1, 3.6%); 7-9 Language Arts (2, 6.5%); 7-9 Math (2, 7.2%); 7-9 Science (1, 5.3%); 7-9 Health (1, 5.0%); CALM 20 (1, 5.9%); 10-12 Math (1, 5.9%); and 10-12 English (1, 4.8%).

What implications do study findings hold for curriculum development processes? was one of the questions (3.d) in the Terms of Reference. Many of the interviewees' responses listed above address this. An important general finding mentioned repeatedly in other sections of this report provides a direct implication for curriculum development; namely, the request for greater specificity in outlining learning expectations, even by grade level. In the evaluation section a related request is for a proficiency levels document which would clarify the levels of skills required at various grade levels.

MISCELLANEOUS OBSERVATIONS
RE: LOCAL CONDITIONS

(7.3% of 287 related miscellaneous needs in the local venue)

Several of those interviewed recalled experiencing needs during implementation of the new or revised program which do not logically fit in any of the categories used above. These needs, and the numbers and proportions of educators within each subject expressing them are as follows:

1. Locally, higher priority and status and/or support needs to be assigned to the program: 1-6 Drama (2, 25.0%), Art 10-30 (1, 6.7%).
2. 'Unsemester' French: French 10-30 (1, 7.1%).
3. The local budget for resources needs to be increased (4.9%). 1-6 Health (1, 5.6%); 1-6 Language Arts (1, 2.9%); 1-6 Art (1, 20.0%); 1-6 Science (1, 100%); 7-9 Language

Arts (3, 9.7%); 7-9 Math (2, 7.7%); 7-9 Science (2, 10.5%); 7-9 Health (1, 5.3%); CALM 20 (1, 5.9%); and Art 10-30 (2, 13.3%).

4. Timetabling CALM 20 is a major administrative problem because of the recent reduction in electives and the fact that it is mandatory for all students.

   One administrator contributed this observation about timetabling difficulties.

5. Teachers need to be kept informed about upcoming conferences: 1-6 Music (1, 33.3%); and 7-9 Health (1, 5.3%).

EVALUATION OF PUPIL PROGRESS:
OBSERVATIONS NOT DIRECTED AT SPECIFIC CURRICULUM SUPPORT DOCUMENTS (42.2% of 287 commented)

Comments were made about evaluation throughout the interview. Selections of those which were not intended to reflect on any curriculum support document are enumerated below. More comments are recorded elsewhere in the Evaluation sections in parts of the report dealing with curriculum guides.

1. I need tools for use in evaluating (4.5%).

   Thirteen expressed this need in the context of commentaries about these subjects: 1-6 Language Arts (5, 14.3%); 1-6 Social Studies (1, 100%); 7-9 Language Arts (1, 3.2%); 7-9 Health (2, 10.0%); Reading 10 (1, 12.5%); and 10-12 English (3, 14.3%).

2. There is not enough time available for me to use the Diagnostic Reading Test (noted earlier as 31.9: Teaching and Working Conditions) (1.7%).

   Five teachers, all in 1-6 Language Arts (14.3%) registered this observation about the length of the test.

3. There is a mis-match between the provincial exam and the curriculum (2.4%).

   Seven teachers, three each in Math and Language Arts/English, expressed complaints that provincial exams are not sufficiently congruent with the curriculum: 1-6 Language Arts (1, 2.9%); 1-6 Social Studies (1, 100%); 1-6 Math (2, 7.1%); 10-12 Math (1, 5.9%); and 10-12 English (2, 9.5%).

4. The local grading and reporting emphases in student evaluation are inappropriate (2.1%).

   Six teachers deplored the priority assigned to grading/reporting of pupil progress in the following subjects: 1-6 Language Arts (1, 2.9%); 1-6 Art (1, 20.0%); 7-9 Language Arts (2, 6.5%); 7-9 Health (1, 5.3%); and Reading 10 (1, 12.5%).

5. We need objective tests for listening and speaking and for inclusion in provincial tests (5.2%).

   Fifteen teachers, all but one commenting about the English Language Arts program areas, voiced the plea for objective means for measuring facility in listening and speaking. The numbers and percentages within each subject were as follows: 1-6 Language Arts (5, 14.3%), 7-9 Language Arts (6, 19.4%), 10-12 English (3, 14.3%); and French 10-30 (1, 7.1%).

6. Entry level testing of all pupils from feeder schools is needed.,

   Two teachers of French 10-30 (14.2%) suggested this.

7. Benchmarks (standards) of performance are needed by teachers to provide referents for securing feedback about how well they are doing (3.8%).

   Eleven teachers reported the need for performance standards for use in interpreting evaluation information. Subjects and numbers/percentages of respondents within each subject were as follows: 1-6 Language Arts (3, 8.6%); 1-6 Social Studies (1, 100%); 7-9 Language Arts (1, 3.2%); 7-9 Health (1, 5.0%); Reading 10 (1, 12.5%); and 10-12 English (4, 19.0%);

8. We need a proficiency levels document which would clarify levels of skills expected at various grades. Pupils' work products could be displayed (16.7%).

   Specificity about expectations for pupils was a type of need expressed by 48 educators in the sample of interviewees (16.7% of the total). The programs for which this need was reported, and respondents/percentages within each, included these: ECS (2, 50.0%); 1-6 Health (2, 11.1%); 1-6 Language Arts (9, 25.7%); 1-6 Math (5, 17.9%); 1-6 Drama (1, 12.5%), 1-6 Social Studies (1, 100%); 1-6 Science (1, 100%); 7-9 Language Arts (7, 22.6%); 7-9 Math (2, 7.7%); 7-9 Science (3, 15.8%); 7-9 Health (1, 5.0%); Reading 10 (3, 37.5%); 10-12 English (4, 19.0%); Art 10-30 (4, 26.7%); and French 10-30 (3, 21.4%).

   Clarification of learning expectations as a support for teachers in evaluating pupil performance was one of the most ubiquitous needs expressed in the survey.

9. The grade 9 answer key for grade 9 Math has not been provided (several junior high math teachers) (0.7%).

10. Remove visual components from provincial exam -- they inject a cultural bias (0.35%).

    One teacher in 10-12 English (4.8%) felt that cultured biases could not be avoided if viewing skills were measured.

11. Math 10 and 20 skills should be included in the Math 30 exam (0.35%).

One teacher in 10-12 Math (5.9%) offered this suggestion.

12. Evaluation procedures can be handled locally, with provincial leadership (0.7%).

    Two teachers, one for each of 1-6 Math (3.6%) and 7-9 Science (5.3%) communicated this observation.

13. Two teachers of 7-9 Math (7.7%) felt that local evaluation policy needs to be recognized in any provincial statements of policies, procedures or guidelines.

14. Summary charts displaying the essentials and highlights of programs are needed as referents to aid in evaluating pupil achievement (1.7%).

    One respondent suggested a need for summaries in each of the following subjects: 1-6 Social Studies (100%); 7-9 Science (5.3%); Reading 10 (12.5%); 10-12 English (4.8%); and Art 10-30 (6.7%); Elsewhere during the interviews the same suggestion was made to facilitate the work of supervisors and administrators and to provide summary overview information for use by all.

15. Provincial achievement testing foci influence areas to which priority is assigned by teachers (0.35%).

    One respondent, in 1-6 Math (3.6%), commented about the impact of provincial testing on what is taught.

16. More emphasis is needed in programs and for evaluations concerning the affective development of pupils (1.7%).

    Five educators remarked on the need for attention to the affective domain in program development and evaluation: 1-6 Health (3, 16.7%); Reading 10 (1, 12.5%); and 10-12 English (1, 4.8%).

SOLUTIONS TO PROBLEMS UNCOVERED DURING IMPLEMENTATION OF PROGRAMS: INTERVIEWEES' SUGGESTIONS

How do you suggest each of the difficulties mentioned above could best be reduced or eliminated? This was the next question addressed to respondents who had reported current needs or uncertainties which only became apparent during implementation of a program. The suggestions for meeting needs enumerated below are grouped in two clusters. Those in the first category pertain mainly to personal and professional development of teachers and parents. The second category includes suggested changes in support documents, learning resources, programs and programming.

PERSONAL/PROFESSIONAL DEVELOPMENT SUGGESTIONS

(25.4% of the total respondent group commented; N = 287)

1. Exercising self-initiatives (e.g., trial and error attempts) and developing solutions via practice and experience (2.1%).

2. More inservice (13.9%)

   This solution was proposed by teachers in most subjects. Numbers and percentages for subjects represented were as follows: 7-9 Art (2, 20.0%); 1-6 Art (2, 40.0%); 1-6 Music (1, 33.3%); Art 10-30 (3, 20.0%); 1-6 Language Arts (7, 20.0%); 7-9 Health (4, 20.0%); CALM 20 (3, 17.6%); 7-9 Science (3, 15.7%); 1-6 Math (4, 14.3%); Reading 10 (1, 12,5%); 1-6 Health (2, 11.1%); 10-12 English (2, 9.5%); and 7-9 Math (1, 3.8%).

3. Improved inservice e.g., more teacher involvement, more practical demonstrations, etc. (14.6%).

   An equal number suggested changes to the inservice received. Those subjects associated most frequently with these suggestions were: 1-6 Art (2, 40.0%); 1-6 Music (1, 33.3%); Art 10-30 (5, 33.3%); 1-6 Language Arts (7, 20.0%); 7-9 Health (20.0%), CALM 20 (3, 17.6%); 7-9 Science (3, 15.8%); and 1-6 Math (4, 14.3%). The remaining subjects had lower proportions of sample members suggesting changes to inservice education practices.

4. Provide more preparation time i.e., more lead time for planning between announcements of curriculum change and the date for implementation (2.4%).

   Two teachers in 7-9 Math (7.7%) suggested more time was needed and that material should be available well in advance of the start-up date. The remaining subjects had not more than one advocate suggesting more lead time.

5. Encourage/facilitate peer networking (6.6% of the total sample).

   Peer networking was most strongly supported by teachers in 1-6 Mathematics (3, 10.7%); 7-9 Language Arts (4, 12.9%); and CALM 20 (2, 11.8%); Eight other subjects were identified with only one or two sample members recommending this action.

6. Improve communication with and reporting to parents (1.7% of the total).

   Two members from 7-9 Language Arts (6.5%) suggested this. One member of the sample in these subjects followed suit: ECS (25.0%); 7-9 Science (5.3%); and 7-9 Health and Personal Life Skills (5.0%).

7. More teacher commitment (0.7%).

   Only two sample members suggested this.

8. Provide feedback and consultation (2.8%).

   Two teachers from each of 1-6 Language Arts (9.8%) suggested supervisory support of this type. The subjects associated with solitary sample members who sought this type of aid were 1-6 Math (3.6%); 1-6 Art (20.0%); 7-9 Science (5.3%); and Art 10-30 (6.7%).

9. Increase the autonomy of the teacher e.g., provide more freedom (0.7%).

   Only two teachers suggested more teacher freedom as a means for solving some problems. One of these taught 1-6 Health (5.6%) and the second was responsible for 7-9 Home Economics.

10. Inservice and funding are needed for training reluctant parents to serve as LAC Executive Members (0.7%).

    Two ECS teachers (50.0%) noted this need and suggested a solution.

11. ECS teachers need inservice about readiness skills required for grade one while primary school teachers need inservice about the benefits of play activities (0.7%).

    Two ECS teachers thought ECS-Grade One articulation might be improved via these suggestions.

CHANGES IN SUPPORT DOCUMENTS, LEARNING RESOURCES, OR PROGRAMS (35.4% of 287)

By this point in the interview some respondents had already suggested changes which would eliminate or ameliorate difficulties uncovered during implementation. Some saw fit to repeat these at this point. In some instances questions about particular curriculum guides and support documents which were to be posed later in the interview were answered. These repetitive and anticipatory comments are included in this listing along with general statements which were not intended to pertain to a particular subject.

1. Replace text or correct errors (2.8%).

   The responses parallel closely those in 42.1 above in the section entitled Pupil Learning Resources.

2. Change the program e.g., remove redundancies (7.3%).

   Once again,the listing parallels one presented earlier, this time in the section entitled Concerns About Program Changes (42.2). The subjects complained about most frequently with respect to redundancies were 7-9 Health (25.0% of that group) and CALM 20 (11.0%). The redundancies of concern were self-concept and repeated use through the grades of the same audio-visual aids.

3. Improve referencing and references.

   Upcoming sections in this report focus on referencing and references. At this point it was mentioned with respect to support documents by 4.2% of the total group.

4. Send out curriculum guides or other support documents earlier and well in advance of the dates set for implementing (2.8%).

   As reported elsewhere the main complaints were about a junior high mathematics course.

5. Improve statements of objectives and comments and applications e.g., make these more explicit for each grade (3.5%).

   The most frequent mentions about these needs related to these subjects: 1-6 Language Arts (2, 5.7%) and 10-12 English (3, 14.3). The topic is dealt with greater detail in the upcoming sections on curriculum guides and other support publications.

6. Match curriculum and text more closely (2.4%).

   The major complaints in terms of frequency were related to 10-12 Math (11.8%) and French 10-30 (14.3%).

7. Increase the credit value (3.8%).

   The quantitative curricular demands were judged to be excessive in CALM 20 by four teachers (23.5%). Other subjects mentioned once were 1-6 Drama (12.5%) and 7-9 Health (5.0%). The solution suggested was to increase instruction time.

8. Provide more monograph material e.g., more suggestions for enrichment activities or extension math problems (7.6%).

   Math and science teachers mentioned this solution most frequently: 1-6 Math (5, 17.9%), 7-9 Math (4, 15.4%), 7-9 Science (3, 15.8%); 1-6 Language Arts (3, 8.6%); 7-9 Health (2, 11.0%); 10-12 Math (2, 11.7%); and one teacher in each of 7-9 Language Arts (3.2%), CALM 20 (5.9%), and 10-12 English (4.8%).

9. Assign higher status and priority to the program locally.

   As noted elsewhere this suggestion was a reflection of needs for enrollment and resources for 1-6 Drama and Art 10-30.

10. Support documents or inservice do not provide enough range to accommodate individual differences among teachers and the wide variety of local circumstances. More facility for individualizing and tailoring is needed (perhaps via 1:1

conferencing, computer networking and electronic bulletin boards, conference calls, response line service, etc.) (1.0%).

Three teachers commented in this vein, one in each of 7-9 Language Arts (3.2%), 7-9 Math (11.5%), and 10-12 English (4.8%).

NEEDS UNCOVERED DURING IMPLEMENTATION: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

The sample of school-based educators next responded to interview questions about problems/needs they encountered after the start-up for the program i.e., during implementation. As displayed in Table 8 a wider range of difficulties was experienced than was listed as initial concerns in the previous section.

Table 8 **Types of Needs Uncovered During Implementation: Comparisons with Persisting Initial Needs.**

Category of Concern	Persisting Initial Concerns* % of sample N = 302	Concerns Detected Later % of sample N = 302
16.0 Lack of Information or Experience	4.3	5.9
17.0 Insufficient Specificity	7.9	10.8
18.0 Personal or Professional Competencies	8.2	6.5
19.0 Change Related to Program Changes	3.0	7.7
20.0 Student Capabilities and Interests	7.3	25.1
Teaching and Working Conditions	-	13.9
Learning Resources	-	18.8
Curriculum Design	-	12.9
Evaluation	-	42.2
Miscellaneous Local Needs	-	7.3
"Yes" to having a need	27.2	61.7

*From Table 5.

As expected, the experience acquired during presentation uncovered additional problems related to students' interaction with the program, learning and teaching resources, and teaching and working conditions. Not anticipated was the relatively large proportion (42.2%) reporting major and minor problems associated with evaluation of pupil progress. Highlights and most frequently mentioned needs are as follows:

For needs identified as #16, 17, 18, and 19 in Table 8 the kinds reported and the proportion of the total respondents mentioning each type are very similar to those reported in the section concerning initial needs in Table 5. Some teachers simply recalled identifying the need belatedly relative to others.

Student capabilities and interests and the heterogeneous nature of pupils posed a problem for a significant minority of educators (25.1%). Aids and techniques for coping with individual differences were the needs implied from the wide ranging comments in this category. The subjects mentioned most frequently as posing problems for students due to lack of pupil aptitude and/or appropriate learning resources were English 13-33 and Art 10-30. Comments in this vein were widely and evenly distributed among the other subjects.

Teaching and working conditions complaints were also voiced by a substantial minority of the total sample (13.9%). Most of the complaints were about excessive workloads and lack of time to perform certain tasks. Subjects mentioned most frequently as being too lengthy were CALM 20 (23.5% of teachers in that program commenting), 7-9 Language Arts (12.9%), French 10-30 (14.2%), and Art 10-30 (20.0%).

Pupils' learning resources were topics commented upon by 18.8% of the total group. Concerns included needs for more 'hands-on' materials (5.2%), text-curriculum mis-matches (8.2%), text changes needed (3.1%), and the expensive requirements for teaching Art.

Curriculum design observations and suggestions (12.9% commented) provided implications for curriculum development processes. A major plea reported throughout the report was for greater specificity about learning expectations for each grade. Many of the comments reflecting on the design of programs were dealt with in other sections as well, e.g., deletions/additions to the program, the lack of capacity for many students to master the skills and understandings expected and the amount of coverage deemed to be excessive. One design feature referred to relatively frequently was the need for guidelines about relative emphasis and instruction time apportionments among various units and themes in each program.

Roles for Alberta Education were said to be changing or in need of modification. One observation was that Alberta Education is no longer leading -- it now operates in a reactive way to developments and initiatives by school jurisdictions (4 respondents). A second suggestion was that Alberta Education should provide a clearinghouse service to distribute materials developed by school systems (5 respondents). Inservice grants would be helpful in delivering curriculum information (3 mentions). Finally, ACCESSIBILITY of curriculum information must routinely receive the attention of Alberta Education as a logical adjunct to preparing information and planning for its dissemination (one respondent).

Evaluation of pupil progress was mentioned by about 40 percent of the sample (**42.2%**). The largest groups communicated these needs: evaluation tools (4.5%), Objective Tests for Listening and Speaking (5.2%, all from English Language Arts and French), benchmarks (standards of performance) (3.8%), and a proficiency levels document (16.7%). The last-named was the most frequently voiced solution for satisfying evaluation needs. The document should include clearly stated skills/knowledge levels expected at various grade levels as well as normative displays of pupils' work products.

Solutions to problems identified during implementation were contributed by respondents and were as follows:

1. **Personal/Professional Development (25.4% offered this type of suggestion).** Included were exercising self-initiatives (2.1%), more inservice (13.9%), improved inservice (14.6%), provide more lead time (2.4%), facilitate peer networking (6.6%), and provide feedback and consultation (2.8%). More and better inservice were the solutions suggested most frequently.
2. **Changes in support documents, learning resources, or programs (these were suggested by 35.4%).**

   Many of the suggestions about publications or programs anticipated comments repeated later in the interview when particular documents were discussed. Others were repetitions of solutions offered earlier.

   The list of solutions is as follows:

   - Replace text or correct errors (2.8%).

- Change the programs, e.g., reduce redundancies (such as self-concept in Health and CALM 20) (7.3%).
- Improve referencing and references (4.2%).
- Send out curriculum materials earlier (2.8%).
- Make statements of objectives (also comments and applications) more explicit for each grade (3.5%).
- Match curriculum and text more closely (2.4%).
- Increase the instruction time for a (specified) course (CALM 20 was mentioned most frequently) (3.8%).
- Provide more suggestions for enrichment and extension (7.6%).
- Provide more support locally (1.0%).
- Provide for individualizing support and tailoring to meet unique and local needs by 1:1 conferencing, peer networking, and using available technologies (1.0%).

IMPLEMENTATION NEEDS: CONCLUSIONS AND RECOMMENDATIONS

The Study Team concludes:

C 3.1 That, based on the sample of respondents and programs selected, the implementation of new and revised programs in Alberta schools is in the hands of concerned and committed professionals who are receptive to additional assistance. Implementation is being approached by a very large majority of school-based educators with commendable enthusiasm, vigour and professional creativity.

Accordingly, it is our view that continued leadership by Alberta Education and investments in additional and improved support will yield substantial dividends.

C 3.2 That all of the conclusions and recommendations listed above under Initial Concerns have received substantial additional support from the replies to interview questions about needs uncovered during implementation.

C 3.3 That needs related to accommodating pupils' capabilities and interests (a topic addressed earlier in the section entitled Initial Needs . . .) became increasingly apparent and increased substantially in magnitude during implementation.

C 3.4 That, among needs not mentioned as apparent when new or revised programs were first announced, evaluation of student achievement ranks highest by far in frequency of mention and as a challenge for teachers.

C 3.5 That the preparation of examination bleuprints by the Curriculum Design Branch likely helps meet educators' needs for specificity about learning expectations, but only for the grades targetted for provincial exams.

C 3.6 That, since other needs from the lengthy enumerations in this section are either reported by relatively few educators and/or may be relatively easy to reduce or eliminate,

It is recommended:

R 3.1 That Alberta Education personnel consider further each of the problems comprising the set referred to in C 3.6 above and recommend actions which seem necessary, appropriate and feasible.

R 3.2* That assisting program implementers in accommodating to pupils' individual differences be accorded high priority in planning/ developing/ reviewing Alberta Education curriculum support publications and services.

R 3.3* That, in like fashion, facilitating the work of teachers in evaluation and reporting student achievement routinely receive attention and be considered for inclusion in Alberta Education support publications and services.

R 3.4 That consideration be given to developing test blueprints based on expected learning outcomes and distributing these for subjects and grades not selected for the provincial examination schedule.

***Note: specific suggestions from interviewers and interviewees are deferred to reports on these topics in upcoming sections.**

ALBERTA EDUCATION CURRICULUM GUIDES

CAVEATS AND CAUTIONS

A curriculum guide (currently termed a Teacher Resource Manual for 7-9 Math) along with the Program of Studies is the curriculum publication routinely distributed by Alberta Education to provide support to those implementing new and revised programs. Considerable variety exists in the content provided and breadth of purposes intended for the various guides. In providing support in print form for some programs it is the single document provided e.g., 1-6 Language Arts and 1-6 Mathematics. For another subject (CALM 20) the Curriculum Guide provides little more than what appears in the Program of Studies; the main support is contained, in voluminous fashion, in the two Teacher Resource Manuals. In other programs, notably 1-6 Health and 7-9 Health and Personal Life Skills, considerable support is provided in each of the respective Alberta Education Curriculum Guides and Teacher Resource Manuals, with the kind of information provided in one a virtual void in the other.

Accordingly, low ratings and negative comments about a feature in a curriculum guide or teacher resource manual may simply be a function of its absence or sparse treatment there. However, the topic may well be treated extensively in the companion publication. These situations occur in the Health publications for elementary and junior high school and for

CALM 20. Considered in combination the support information for these three subjects in the curriculum guides and teacher resource manuals is complete, highly rated by users and provides models which, in the opinion of the survey team, should be emulated in the future. The reader is cautioned therefore to consider the data about both types of documents and other forms of support in drawing conclusions about the adequacy of support. Examples of "other forms" of support might potentially include learning specifications distributed by the Student Evaluation and Records Branch and computerized test item banks from that source.

USES MADE OF THE CURRICULUM GUIDE

What uses do you make of the Curriculum Guide (for _____ subject)? was the open-ended question presented to the sample of school-based educators. Since the query was unstructured only highlights recalled "off-the-top" were reported as uses. The interviewers noted that considerably more uses were listed in later parts of the interview when semi-structured questions were presented i.e., queries about teaching strategies, accommodating individual differences, evaluating pupil progress and references. As a consequence the uses reported at this point and portrayed in Tables 9 and 10 are those that are most obvious to the respondents. They were communicated without the benefit of a pause to reflect about other uses and the cues provided later, and therefore understate the perceptions of the utility of curriculum guides.

Tables 9 and 10 indicate that by far the uses readily recalled for curriculum guides were for some aspect of planning instruction. The three most frequently stated uses (Table 9) were for 1) long-term planning (and/or for filing the Annual Plan which most local jurisdictions require -- 66.5% of the total sample mentioned this), 2) unit and/or lesson planning (53.7%), and 3) monitoring coverage, checking progress and reviewing goals (48.1%). Curriculum guides for 7-9 Science, 7-9 Math and 7-9 Language Arts were mentioned most frequently as used for these aspects of planning followed closely by 1-6 Health, CALM 20 and 10-12 Math.

The ECS publication entitled **Philosophy, Goals and Program Dimensions** was a publication selected in lieu of a curriculum guide. It was critiqued by four ECS teachers. As noted in Tables 9 and 10 the uses reported were delimited to long-term planning (75.0% or three ECS respondents reporting this), monitoring/reviewing program coverage (50%), and communicating with parents (75%).

Table 9 Uses Made of Curriculum Guides for Planning: Percentage of Respondents.

Subject	Yearly, Long-term Plans	Unit or Lesson Plans	Monitoring, Checks, Reviews	Basis for Evaluations	References Used	Time Apportioning	Integration	Scope & Sequence
ECS	75.0		50.0					
1-6 Hlth.	77.8	50.0	44.4	5.5	27.8	5.5	5.5	
1-6 Lang.	65.7	37.1	42.9	14.3	8.8			11.4
1-6 Math	60.7	42.9	46.4	14.3	10.7			3.6
1-6 Drama	62.5	37.5	37.5		12.5			
1-6 Art	40.0	60.0	60.0	20.0	20.0			
1-6 Music	66.7	33.3						
7-9 Lang.	74.2	74.2	38.7	32.3	16.1			3.2
7-9 Math	69.2	69.2	61.5	15.3	11.5	7.0		
7-9 Sc.	78.9	63.1	31.6	5.3	5.3	5.3	5.3	5.3
7-9 Hlth.	50.0	55.0	60.0		40.0	5.0		
Read 10	50.0	50.0	25.0	25.0	25.0			12.5
CALM 20	47.0	47.0	41.2		5.8	5.8		
10-12 Math	64.7	41.2	64.7	11.8	17.6	17.6		
10-12 Eng.	57.1	47.6	57.1	36.4	28.6		4.8	4.8
Art 10-30	66.7	53.3	26.7	20.0	14.3		6.7	13.3
Fr. 10-30	64.2	35.7	50.0	14.3				
Total	66.5	53.7	48.1	13.9	13.9	3.1	1.4	3.1

Except for teachers of French 10-30, 100% of the respondents indicated some use made of the curriculum guide for the subject selected for discussion. In French 10-30 three of the fourteen teachers reported that they did not have access to a curriculum guide.

Have you had a copy of the Curriculum Guide during all or most of the current school year? was answered in the affirmative by 93 percent of the sample members. Subject subgroups with more than one member indicating no access or delayed access to the respective curriculum guide were 7-9 Math (5, 19.2%), 7-9 Science (2, 10.5%), 1-6 Math (2, 7.1%), and French 10-30 (3, 21.4%).

The Program of Studies, either as an insert or component part of curriculum guides or a separate document is widely used. More users refer to it than any other portion of curriculum guides for the three major uses listed above; namely long term planning or preparation of the required annual plan, unit or lesson planning, and monitoring/reviewing course coverage. It appears to be universally accepted as a necessary and useful document.

Table 10 **Additional, Miscellaneous Uses for Curriculum Guides: Proportion of Total Respondents Reporting by Use and by Subject.**

	Philosophy &Rationale Useful	Bases for Selecting/ Ordering Materials	Communicating with Pupils/Parents	Consultations with Teachers	Agenda for Dept./Staff Meetings	Recent or Upcoming Guides Useful	% Using Within Subject
ECS			75.0				75.0
1-6 Health	5.6						5.6
1-6 Lang.	17.1	5.7		5.7			28.6
1-6 Math				3.6	3.6		7.2
1-6 Drama							0.0
1-6 Art	20.0			20.0			40.0
1-6 Music							0.0
7-9 Lang.	9.7		3.2		3.2		16.1
7-9 Math	3.8	3.8			3.8	7.7	19.1
7-9 Sc.			5.3			5.3	10.6
7-9 Health	10.0	10.0	10.0				30.0
Read 10	37.5						37.5
CALM 20	23.5		5.9		5.9	5.9	41.2
10-12 Math			11.8				11.8
10-12 Eng.		4.8	4.8				9.6
Art 10-30	13.3		6.7				20.0
Fr. 10-30			7.1				7.1
Total	8.0	2.1	4.5	3.5	1.4	1.4	20.9

Not a single interviewee communicated a contrary or negative opinion. Indeed, many referred to it as "the standard I go by", as "my bible for this course" and "the checklist I use to make sure of coverage".

The listing and ordering of content from the Program of Studies' inserts in curriculum guides were used by many as guides to the scope and sequence information needed in planning instruction. Scope and Sequence features of curriculum guides were the aspects chosen most frequently by interviewees when asked for additional comments at the end of the interview. Often Scope and Sequence was treated as synonymous with the Program of Studies. The next section reports by subjects the results from this portion of the interviews.

POSTSCRIPT COMMENTS AND CURRICULUM GUIDES

Near the end of the interviews about curriculum guides members of the sample were asked for additional comments about features of their choice. Table 11 displays the features, uses and recommendation which were selected most frequently.

Table 11 Most Frequent Postscript Comments about Curriculum Guides: Features, Uses, Recommendation (Percentages of Respondents).

	Feature Selected		Uses		
Subject	Scope & Sequence	Philosophy, Rationale, Objectives	Planning, Organizing	Reviewing Coverage & Goals	Recommendations: Format Excellent, Retain
ECS					
1-6 Health	27.7		38.9	22.2	44.4
1-6 Lang.	31.4		25.7	11.4	17.1
1-6 Math	42.9		46.4	28.5	32.1
1-6 Drama	25.0		25.0	25.0	12.5
1-6 Art	33.3		20.0		
1-6 Music	-				
7-9 Lang.	16.1	3.2	16.1	12.9	25.8
7-9 Math	11.5		11.5	11.5	19.2
7-9 Sc.	21.0		21.0	5.3	5.3
7-9 Health	30.0		30.0	20.0	10.0
Read 10	12.5		25.0	25.0	
CALM 20	11.8	5.9	11.8	11.8	17.6
10-12 Math	23.5		29.4	11.8	17.6
10-12 Eng.	9.5	9.5	4.8	4.8	14.3
Art 10-30	13.3	6.7	13.3	6.7	
Fr. 10-30	7.1		7.1		
Total*	21.6	1.7	22.2	13.6	17.1

*Note: Total = percentage of total sample; other numerals = % within subjects.

Most Frequent Comments about Curriculum Guides

As noted in the comments above concerning the Program of Studies, commendations about scope and sequence types of information was the single feature recorded most often. Table 11 indicates that 21.6% of the total respondent group mentioned this in some manner. Curriculum guides for the following received the most commendations for this characteristic: all elementary school programs selected for the survey; 7-9 Health and Personal Life Skills and 10-12 Mathematics. It appears that teachers of the elementary grades, who typically have the most subjects assigned, are the most appreciative of this type of support.

Philosophy, rationale and the statements of objectives was an aspect of curriculum guides mentioned second in order of frequency. However, only five respondents (1.7% of the total) remarked about one or more of these.

With respect to uses for the curriculum guide there was a high correlation with scope and sequence; those that selected the latter for commendation also reported frequent usage for planning/organizing and reviewing coverage. These findings correspond to the ones recorded at the outset of the interview on curriculum guides when uses were listed.

Least Frequent Comments About Curriculum Guides

A potpourri of observations and curriculum guides are reported at this point. These were contributed by interviewees at later stages of the interview. A few are repeats of comments made earlier by others.

Communicating with Parents

- One teacher in 10-12 Math noted that communicating with parents about the course(s) was difficult. A publication designed to communicate would be useful.

Developing Curriculum Guides

- Curriculum guides need to be piloted before wide distribution (2 teachers, one in each of Social Studies and 7-9 Math)
- The binding is poor quality (one teacher in 7-9 Math)
- It is compact, concise, inspirational and a delight to use (commendations of these types from one teacher in each of 7-9 Language Arts, Reading 10 and Art 10-30)
- Looseleaf format recommended (one teacher in 7-9 Math).

Charts and Flow-charts

- The fold-outs are cumbersome (one in 1-6 Language Arts)
- More charts and flow-charts would improve the usefulness of the scope and sequence aspects of the curriculum guide (one in 1-6 Language Arts; and two in each of 7-9 Language Arts and 10-12 Math)
- The flow-chart on p. 37 is excellent (three in 7-9 Language Arts)

Understandability

- The curriculum guide is difficult to understand and use (two in 1-6 Art; one in each of 1-6 Music, 7-9 Art and French 10-30; and five or 33.3% in Art 10-30).
- Downgrade the language; simplify (one in each of 1-6 Language Arts and 10-12 English; four in Art 10-30).
- Inservice is required to implement the program successfully (one respondent in each of 1-6 Art, 7-9 Language Arts, 7-9 Health, 10-12 English; two in 7-9 Science).

Usefulness

- The guide is very useful for justifying the course -- communicating the rationale (one respondent in each of 7-9 Language Arts and Art 10-30).
- The appendices are very useful (two teachers in 7-9 Language Arts).
- Listing of characteristics of immersion students is useful (one in 7-9 Immersion Language Arts).
- I add personal notes (one in each of 1-6 Health and 7-9 Health).
- Cultural awareness information is very useful (two interviewees from French 10-30).
- Minimal use -- one respondent reported this in each of 10-12 English and French 10-30.
- Useless -- I don't use the guide (one in each of 1-6 Math, 1-6 Art, 7-9 Art, and French 10-30).
- Workbook worksheets parallel the curriculum guide -- I find this useful (one from 7-9 Science).
- Time allocations in 10-12 Math and CALM 20 Teacher Resource Manuals are appreciated.

Additional Recommended Changes to Curriculum Guides

In addition to suggested revisions, deletions or additions to curriculum guides noted above a number of other recommendations were offered by survey respondents:

1. Specify essentials and optional topics and concepts (1 in 1-6 Math).
2. Include scope and sequence charts and time lines (1 in each of 1-6 Math and 1-6 Art).
3. Color code to match the Teacher Resource Manual (1 in 1-6 Health).
4. Need a single, summary chart which provides an overview of other charted sub-sets of the course (1 in 7-9 Art).
5. Add definitions of the components of Drama (1 in 1-6 Drama).
6. Shorten and abbreviate body knowledge and care sections (2 in 7-9 Health).
7. Community/parent involvement guidelines and suggestions are required (1 in ECS).

GENERAL FINDINGS ABOUT CURRICULUM GUIDES: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The next sections of this report address **specific** foci which might be addressed in varying degrees in curriculum support publications including curriculum guides; namely, 1) Teaching Strategies, 2) Accommodating Individual Differences, 3) Evaluating Pupil Progress, and 4) References and Referencing. Since these topics may be included in either a curriculum guide or a companion support publication, or both, discussion is deferred to a later section of the report. At this juncture discussion is delimited to curriculum guides, excludes reference to these four topics, and deals with a wide range of **general** considerations.

SUMMARY

In the portion of the survey which focussed exclusively on curriculum guides a very large majority (93%) of the school-based sample of educators indicated that they had access to a copy for all or most of the current year. Junior High School Math teachers comprised the majority of those who responded negatively since their copies were late in arriving. Virtually all respondents reported that they used the curriculum guide in the subject chosen for the interview. By far the most frequent uses reported were for some aspect of planning and organizing for instruction: long-term planning, or the Annual Plan required by the school jurisdiction; unit and/or or lesson planning; and monitoring/reviewing/checking coverage.

The portion of the curriculum guide most frequently used in identifying the prescriptive content needed for these planning and monitoring activities was the **Program of Studies**. Without exception this document was accepted, valued and used by those interviewed. The Program of Studies apparently provides the "scope" aspect of the scope and sequence information deemed to be most essential by program implementors.

Other and more specific planning uses reported for curriculum guides and the percentage of the school-based sample reporting them were as follows: basis for evaluations (13.9%), references (13.9%), allocating instructional time (3.1%), planning integration (1.4%), and planning sequencing (3.1%). Elementary teachers reported the highest rates of utilization for planning and reviewing coverage. They also were most laudatory about formats for existing curriculum guides: 44.4% rated 1-6 Health as excellent and 32.1% volunteered a high rating for 1-6 Math. Other guides which also received unsolicited commendations for existing formats were 7-9 Language Arts (25.8%), 7-9 Math (19.2%), CALM 20 (17.6%), 10-12 Math (17.6%), 10-12 English (14.3%), 1-6 Drama (12.5%), and 7-9 Health (10.0%).

Insightful comments and useful suggestions were contributed by respondents to the open-ended invitation at the end of the interview for observations about any "other aspect of the curriculum guide". Comments included the need for a document and guidelines for communicating with parents, advice and commendations about developing curriculum guides, and characteristics of guides which are particularly noteworthy and useful (e.g., flow charts, color coding, rationale for justifying the program, appended materials, simplicity of language, and use of inservice as an accompanying service to facilitate successful implementation).

Infrequent users of curriculum guides are included with "the virtually all" group noted above. Those who volunteered that they have used a particular curriculum guide only once (perhaps to prepare a one-time-only annual plan and to read the philosophy and rationale section) acknowledge that needs were met. This applied also to those who use a guide only once or twice per year, typically to review goals and monitor coverage. It was argued by some infrequent users that repeated readings and frequent readings were not necessary since, once the rationale was internalized and a plan was generated, all of their personal needs were met except for the need to monitor coverage. Some infrequent or once-only users offered the same explanation for supplementary curriculum support documents such as monographs and handbooks -- a single reading and reflection about the contents sufficed; why should constant reference to them be expected?

Major Findings about curriculum guides generally were as follows:

1. Virtually all school-based program implementors, teachers and administrators, use them (see Tables 9, 10 in the Complete Report);
2. Considering the totality of responses, program implementors communicated both explicitly and implicitly a host of needs best met by this type of curriculum support;
3. A major "good news" item about curriculum guides is that there was so little bad news. There were very few negative or disparaging comments concerning any aspect of curriculum guides. As noted above, even infrequent users often reported the single reading or annual use as very valuable.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of data provided by school-based members of the survey sample and the impressions acquired during approximately three hundred interviews the study team concludes:

C 4.1 That curriculum guides merit the priority status currently assigned to them since needs for them are broadly-based and numerous;

C 4.2 That general commendations concerning Alberta Education curriculum guides are warranted since they satisfy many of the needs of those responsible for implementing new and revised programs;

C 4.3 That, notwithstanding 4.2 above, minor adjustments and additions to curriculum guides are needed to effect improvements to these well established, universally accepted and high quality curriculum support documents;

C 4.4 That the price of success is eternal vigilance, hence the recommendations which follow concerning securing feedback by continuing field studies about the efficacy of curriculum support publications and services.

RECOMMENDATIONS

The survey team recommends:

R 4.1 That Alberta Education personnel consider further the numerous observations and suggestions of interviewees concerning specific curriculum guides and recommend actions which seem necessary, appropriate and feasible;

R 4.2 That Alberta Education establish as policy and continue the practice of routinely piloting curriculum support documents to secure feedback information from typical users as a quality control mechanism;

R 4.3 That Alberta Education consider including the following features in, or as adjuncts to, curriculum guides:

4.3.1 Executive summary type supplements (for use by hurried, harried administrators and supervisors and to provide overview information for teachers);

4.3.2 An abbreviated version of the Executive Summary document mentioned in 4.3.1 tailored for use in communicating with parents and students.

4.3.3 Creative use of charts and flow charts to provide, in graphic form, overview and summary information about aspects of the program which lend themselves to this medium;

4.3.4 Retention of the Program of Studies information, color-coded as at present;

4.3.5 Adopting common color-coding to identify complementary types of information between curriculum guides and companion support publications;

4.3.6 Preparing checklists and recording forms to facilitate the widespread practice of monitoring and reviewing course coverage; and

4.3.7 Including common terminology, learning assumptions, skill process models, integration within and among subjects (if not in curriculum guides then in companion publications such as teacher resource manuals).

ALBERTA EDUCATION CURRICULUM PUBLICATIONS; SPECIFIC ASPECTS OF PROGRAM SUPPORT

TEACHING STRATEGIES

As noted in the **Caveats and Cautions** section of the report concerning curriculum guides, for some aspects of program support there is a need to consider, concurrently, the major curriculum support publications provided for a subject. The "bottom line" with respect to appropriateness and adequacy is really the cumulative support provided by the total set of documents and services provided.

Accordingly, this section reports the survey results concerning the support provided by curriculum guides **and** companion publications such as monographs, handbooks, and teacher resource manuals. The specific aspects of program support provided from these sources which were investigated were 1) Teaching Strategies, 2) Accommodating Individual Differences, 3) Evaluating Pupil Progress, and 4) References and Referencing.

TEACHING STRATEGIES AS A COMPONENT IN CURRICULUM GUIDES

Overall, 52.4% of the total respondent group responded "Yes" to the query about teaching strategies being included in the curriculum guide being critiqued. In a significant proportion of these critiques the "Yes" was a qualified one since the topic was seldom felt to be treated in a comprehensive manner. However, for many teachers this deficiency was not considered as serious. Of course those most in need of assistance in this area held a contrary view.

The degree to which teaching strategies is perceived to be addressed to some extent in curriculum guides is highly variable, depending on the school program identified. Table 12 displays these perceptions for the fourteen programs selected for the survey.

Table 12 Curriculum Guides Containing Teaching Strategies Suggestions.

Program	Percent "Yes" Responses	Usefulness Rating*	
		Mean	(N)
ECS Philosophy, Goals and Program Dimensions	0.0	-	-
1-6 Health	16.7	5.0	(3)
1-6 Language	47.1	3.7	(15)
1-6 Math	44.4	3.6	(13)
1-6 Drama	100.0	4.4	(5)
7-9 Language Arts	86.7	3.9	(27)
7-9 Math	64.0	3.3	(16)
7-9 Science	15.8	3.0	(3)
7-9 Health and PL Skills	10.5	4.0	(2)
Reading 10	100.0	3.9	(7)
CALM 20	23.5	3.0	(2)
10-12 Math	46.7	3.7	(9)
10-12 English	75.0	3.5	(15)
Art 10-30	80.0	3.6	(12)
French 10-30	64.3	3.1	(9)
Totals (weighted averages)	52.4	3.6	(137)

*Note: usefulness ratings were based on the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful. Weights were adjusted to reflect the variations in N.

As expected, many of the curriculum guides were assigned average ratings in the "3" (parts are useful) category. Exceptions were noted in 1-6 Health and 7-9 Health and Personal Life Skills where respondents tended to be very laudatory about the teaching suggestions provided in the **total** package of guide and teacher resource manual. This very positive response set may have influenced their ratings of the curriculum guide.

TEACHING STRATEGIES AS A COMPONENT IN COMPANION PUBLICATIONS

When time permitted in the schedule set for the interview, respondents were asked to critique and rate curriculum implementation publications available as supplementary and complementary support to curriculum guides. These "companion" publications included: monographs, handbooks and teacher resource manuals provided by Alberta Education; and teacher resource materials provided by publishers or the local school district. Table 13 displays selected information concerning companion documents for various programs.

Table 13 Companion Publications Containing Teaching Strategies Suggestions.

	Alberta Education % Yes (usefulness*)		District or Publisher's % Yes (usefulness*)
Program	Monograph, Handbook	Resource Manual	Resource Guide or Manual or Supplement
1-6 Health	-	100.0 (4.5)	
1-6 Language Arts	-	-	100. (4.2)
1-6 Drama		100.0 (4.0)	
1-6 Math	-		100.0 (4.3)
7-9 Language Arts	100.0 (3.0)		100.0 (4.3)
7-9 Math	100.0 (4.8)		100.0 (4.2)
7-9 Health and Personal Life Skills		83.3 (4.7)	
Reading 10	100.0 (5.0)		
10-12 Math	100.0 (4.0)		
Art 10-30		100.0 (3.0)	
French 10-30		100.0 (nil rating)	
7-9 Science			33.3 (4.0)
CALM 20		100.0 (4.3)	
10-12 English	50.0 (3.0)		

*Note: usefulness ratings are recorded within the parentheses, are sometimes based on small numbers and applied the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.
The percentages of the interviewees affirming that teaching strategies were addressed in a type of document are noted.

Except for secondary Language Arts and English and senior high school Art the usefulness ratings for Alberta Education companion publications relative to ideas about how to teach were assigned an average rating of "4" ("useful"). The publications rated in the English Language Arts areas were the monographs/handbooks on novels, viewing and integration which were not developed with a focus on teaching strategies *per se*. The Art 10-30 resource manual may have been ranked relatively low on utility because of its low rank on understandability (3.0 on a 5-point difficulty scale). The highest ranked Alberta Education publications were the Reading 10 Monograph, the Resource Manuals in 1-6 Drama, Health and CALM 20, and the Problem Solving Monograph for secondary maths. Publishers' documents were all considered 'useful' relative to suggestions about how to teach.

PREFERRED LOCATIONS FOR TEACHING STRATEGIES INFORMATION

School-based educators were asked at the end of the section about teaching strategies to recommend changes (or additions/deletions) concerning the treatment of this topic. Table 14 displays the percentages of total recommendations which expressed preferences about the type of publication in which this information should be placed. Many suggested to leave the quantity and placement "as is" -- an indication of general satisfaction about the amount of aid provided and its location.

Table 14 Locations and Changes to Teaching Strategies Information: Percentages of Total Recommendations.

Program	Add to and/or Retain in:				Leave "as is"			
	Teacher Resource Manual*	Curric. Guide	Either TRM or C. Guide	Total %	Teacher Resource Manual*	Curric. Guide	Not required	Total %
1-6 Health	11.1	22.2		33.3	44.4			44.4
7-9 Health	4.5	13.6		18.1	63.6	5.6		69.2
CALM 20	5.6	5.6		11.2	55.6			55.6
1-6 Language Arts	15.8	10.5	7.0	33.3		3.5		3.5
7-9 Language Arts	5.5	12.7	3.6	21.8		12.7	3.6	16.3
10-12 English	27.6		17.2	44.8			13.6	13.6
Reading 10		16.7		16.7		16.7		16.7
1-6 Math	14.3	16.3	9.5	40.5	2.4	4.8		7.2
7-9 Math	11.5		26.9	38.4	19.2	3.8	7.7	30.3
10-12 Math		15.8	26.3	42.1			31.8	31.8
7-9 Science.	20.8	20.8	16.7	58.3				
French 10-30	14.3	21.4	14.3	50.0		7.1	7.1	14.2
1-6 Drama			14.3	14.3		28.6		28.6
Art 10-30	4.5		9.1	13.6	4.5	13.6		18.1
% of total recommendations	10.4	11.9	9.6	31.9	10.6	6.9	2.2	19.7
% of total respondents	16.5	18.9	15.4	50.8	16.9	11.0	3.5	31.4

*Note: Teacher Resource Manual refers to either an Alberta Education document (or monograph) existing or needed, or a publisher's manual

Most satisfaction relative to teaching strategies information in existing publications provided by either Alberta Education or publishers can be inferred from the "leave as is" data displayed in the right hand columns in Table 14. By far the highest satisfaction levels are reported for 1-6 Health, 7-9 Health and Personal Life Skills and Career and Life Management (CALM 20) publications provided by Alberta Education. Ranked second for satisfaction are secondary math programs. For junior high school mathematics the publisher's teachers' guides and the Alberta Education problem solving monographs are judged to be helpful in providing ideas about how to teach. Respondents for senior high school mathematics are sharply divided on this topic; 31.8% of the responses were "as is -- not required" while 42.1% sought retention and/or additions in existing publications. Junior high school mathematics respondents demonstrated a similar division of opinion. Finally, 1-6 Drama was rated third highest on the suggestions for teaching in the existing Alberta Education publications.

For the remaining programs additional suggestions about teaching strategies appear sought in existing documents (based on the relatively low satisfaction ratings). It is particularly noteworthy that opinion is evenly divided as to preferred locations for teaching strategies information: teacher resource manuals (or monographs), curriculum guides, or both, are equally attractive. Accordingly, no clear direction for policy on this matter is provided from this source.

Recent emphasis on, and augmentations of, teacher resource manuals are viewed relatively positively by teachers and administrators. This is most noticeable with respect to teaching strategies types of needs. The subjects where teacher resource manuals have been accorded high satisfaction ratings are the elementary and junior high school health programs, CALM 20 and junior high math (Table 14). These have been introduced relatively recently and reflect a policy which places emphasis on "bigger and better" teacher resource manuals. The foregoing is a response to Research Question 1.b.: "How would users needs be affected by changes in curriculum documents?". It is likely the provision of additional information addressing areas of need that is prompting these favorable reactions, not the location of this support in a document called a teacher resource manual.

Other publications rated highly on the teaching strategies component were named by some of those interviewed at the schools (many chose not to mention any, claiming lack of sufficient knowledge). Subjects identified with more than 10 mentions for high ratings were as follows: Elementary Health, Junior High School Health, Physical Education and Junior High Math (Publisher's Resource Guide particularly). Five to nine nominations were mentioned for the following (all elementary school publications): Science, Drama, Social Studies (New), Art, and Math.

A total of 100 respondents replied "none" to the request for names of publications they would rate highly on suggestions for teaching. It appears that about one-half of those responding feel the topic is not well covered for any subject. About 30 percent (86) of the sample did not respond to the question.

PRIORITY NEEDS FOR TEACHING STRATEGIES: GENERALIZATIONS FROM THE RESEARCH

Generalizations from the wide ranging research about change processes and the diffusion/adoption of innovations are instructive to those providing support to curriculum implementers. The generalizations are particularly relevant when changes are required in teaching strategies (pedagogical practices). According to this research the nature of the change that teachers and their superordinates are required to implement dictates which types of support mechanisms are likely most efficacious.

If the curriculum change is simply new and slightly different content then dissemination of knowledge about it may be all that is required. In these instances the change does not require marked modifications in pedagogical practices (e.g., in teaching strategies, particularly those based on substantial shifts in roles for the teacher, interactions with pupils, and learning outcomes sought). It was concluded and recommended earlier in this report (p. 14) that provision of the requisite knowledge can be provided via mass media means (i.e., by curriculum implementation support publications, applications of various technologies, and provisions of "one-shot" regional and local orientation seminars). Interpersonal, local interchange among professional peers through informal and formal networks was also reported and recommended as an effective means for disseminating the knowledge component of curriculum change (pp. 14-15).

However, for substantive changes in the role of the teacher or in pedagogical practice (perhaps due to shifts in the learning outcomes sought) the simple provision of knowledge about the changes, while necessary, is not sufficient. As a consequence, other supports -- often sequenced, continuing, and provided over long time frames -- are required. The individuals and groups asked to make the change must be assisted in their passage through the remaining stages of the change process.

Several examples of the need for substantive changes in roles for the teacher and in pedagogical practices were noted during the interviews. One was the need for teachers, increasingly, to act as surrogate parents and the school to serve as a substitute home. This trend was communicated implicitly in many of the comments from interviewees. If the schools and teachers were asked to assume increased responsibilities in this area, substantial and continuing support would be required. A second illustration was with respect to the implementation of Career and Life Management 20 (CALM 20) during its first (optional) year. Shifts in learning expectations for pupils (to an emphasis on affective development) and teaching/learning relationships (to inter-student interactions) were several changes characterizing the new program. Self-reports from those teaching and administering the program indicated that, in spite of the considerable challenges presented by the means intended and the ends sought, implementation was proceeding very well. They credited this to the excellent support provided by the teacher resource manuals provided, the three-day workshops attended, the videotape inservice kit, the lifestyles publication, and assorted local, regional and provincial consultations. The interviewers noted that the current CALM 20 teachers and coordinators are comprised of early adopters who are volunteers and enthusiasts. As well, many have brought skills and experience to the task which were developed and used in other subjects. The investigation team predicts that the "crunch" may come in the future when non-volunteers, relatively lacking in enthusiasm and the unique teaching skills required, are assigned to teach the program. At that time teachers and administrators will have to have access for support in order to advance beyond the knowledge stage.

The review of the research literature undertaken as part of this study (Harvey Research Ltd., 1988) described five stages credited to Rogers (1983). The stages start with **Knowledge** and occur in a sequence through which an individual or organization passes in successfully implementing a program. The generalizations from the research suggest areas where curriculum implementation supports are needed through to the **Confirmation Stage**. The excerpts are from p. 7 and pp. 14-19 in that part of the review which addresses Roger's (1983) Innovation-Decision Process.

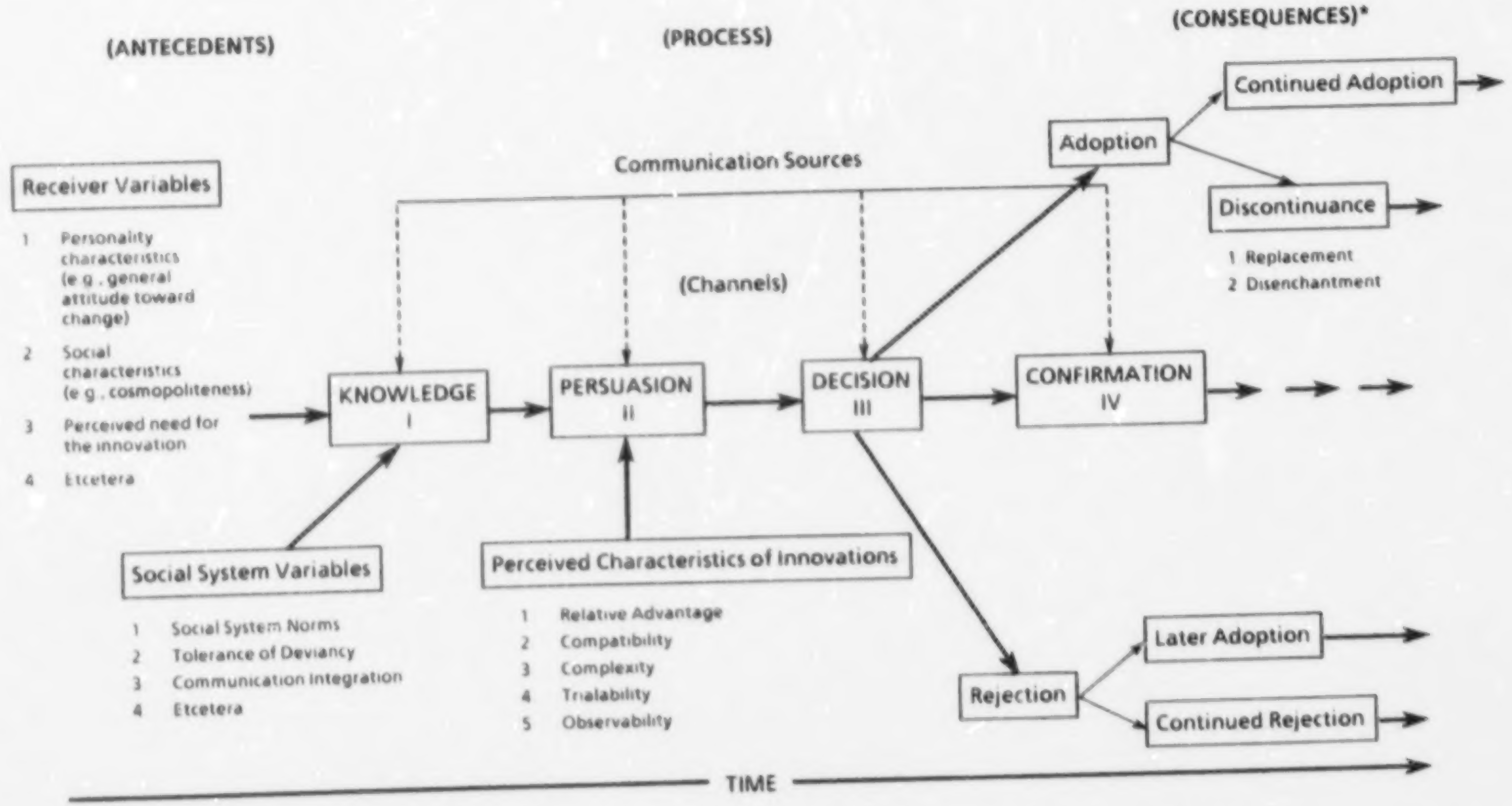
The Innovation-Decision Process

Definition

The innovative-decision process, compared to other types of decision-making, is different in that it deals with uncertainty about a new alternative. It refers to the sequence of stages through which an individual (or other decision-making unit) passes from first knowledge of the innovation, to forming an attitude toward it, to a decision to adopt or reject, to implementation of the new idea, and to a confirmation of this decision (Rogers, 1983, p. 163).

Paradigm of the Innovation - Decision Process

(Figure 3-1 from Rogers and Shoemaker, 1971, p. 102)


(ANTECEDENTS)
(PROCESS)
(CONSEQUENCES)*
Receiver Variables
1 Personality characteristics (e.g., general attitude toward change)
2 Social characteristics (e.g., cosmopoliteness)
3 Perceived need for the innovation
4 Etcetera
Social System Variables
1 Social System Norms
2 Tolerance of Deviancy
3 Communication Integration
4 Etcetera
Communication Sources
(Channels)
KNOWLEDGE I
PERSUASION II
DECISION III
CONFIRMATION IV
Perceived Characteristics of Innovations
1 Relative Advantage
2 Compatibility
3 Complexity
4 Trialability
5 Observability
Adoption
Continued Adoption
Discontinuance
1 Replacement
2 Disenchantment
Rejection
Later Adoption
Continued Rejection
TIME

*For the sake of simplicity the authors have not shown the consequences of the innovation in this paradigm but only the consequences of the process

Stages in the Innovation-Decision Process

Five stages were proposed by Rogers (1983) to describe the decision-making sequence experienced by adopting units (individuals or organizations) with respect to innovations:

1. **Knowledge** - the adopter is exposed to the innovation's existence and gains some understanding of how it functions.

   Curriculum bulletins or newsletters, conferences, teachers' conventions, staff meetings and the mass media are examples of sources from which the adopter is made aware of the innovation and may develop an interest and preliminary understanding about it. Such mass media type channels of communication are relatively more important (than interpersonal channels) at the knowledge stage.

   The generalizations derived from the results of research are that **mass media and cosmopolite channels are relatively more important at the knowledge stage** (90 percent and 86 percent support respectively) **and interpersonal channels and localite channels are relatively more important at the persuasion stage** (90 percent and 86 percent are the respective proportions supported by the research).

2. **Persuasion** - the individual (or other decision-making unit) forms a favourable or unfavourable attitude toward the innovation.

   Since interpersonal and localite channels of communication exert the most persuasive influence on attitudes, activities such as teacher/administrator intervisitations, on-site observation of new programs, demonstrations and discussions, and personal dialogues with peers (preferably those who have experienced the innovation) seem most efficacious. It follows that these activities are most easily planned and coordinated at the local (school or district) levels. However, a provincial department might appropriately use such techniques in facilitating passage through this stage by representatives, opinion leaders and status leaders from school jurisdictions and schools. The expectation would be that those selected would return home to communicate knowledge and exert persuasion using appropriate channels.

3. **Decision** - the individual (or other decision-making unit) engages in activities that lead to a choice to adopt or reject the innovation.

   The earlier studies concerning change and the diffusion of innovations terminated at the adoption stage. Concerning adoption, a large body of research has been conducted about the characteristics of adopters. Rogers' (1983, p. 260-61) footnotes that some 1800 empirical publications have dealt with the topic by examining adopter characteristics which are related to innovativeness.

As will be noted in the upcoming section on Adopter Categories, knowledge about the nature of the adopter(s) aids in selecting appropriate diffusion strategies. Attending to individual differences among adopters is in order.

4. **Implementation** - the adopting unit (individual or organization) puts an innovation into use.

The section on implementation will be discussed at some length later in this review where the views of educators will appear. Investigators of change processes have discovered somewhat belatedly that one cannot assume that implementation will occur as a consequence of a decision to adopt. The study of change in organizational settings has been particularly revealing in this regard (Rogers, 1983, Chapter 10). In organizations a number of people are usually involved in the innovation-decision process, and the implementers are often a different set of people.

This distinction between decision-makers and implementers describes the realities associated with many curriculum changes in education. A provincial department may mandate a change which compels the school jurisdiction, school and teacher to decide to adopt. A number of consequences to this action may result:

i) A very active search for additional information and resources by implementers takes place. It is at this point that substantial, continuing technical support should be provided since anxieties, frustration, uncertainty and equivocal feelings are at peak levels.

ii) Partial implementation may take place. As noted previously the National Diffusion Network survey of U.S. schools found that 56 percent of adopters implemented only selected aspects of an innovation (Rogers, 1983, p. 177). In education a partial implementation is more likely to occur with respect to teaching methods (e.g., enquiry approaches, value clarification, problem-solving, and individualization) than for changes in cognitive content (student outcome objectives) or in organization. On this topic Kimpston (1985) in his review has stated:

> . . . organizational innovations, which are usually clearly stated, handed down from an unquestioned central authority, and for which the teacher will be held accountable, will be implemented with relatively few negative attitudes on the part of implementers, but pedagogical innovations, usually not so

> clearly stated and demanding that teachers change their own behaviour, have less chance for 'across the board' implementation. As several researchers have found, teachers tend to implement more effectively curricula which allow them to use instructional strategies with which they are already familiar (p. 186).

The last point made by Kimpston serves as a reminder that the compatibility of the required change (its congruency with past experience and current skill levels) is a very significant factor associated with implementation. It follows that if marked changes in teaching behaviour are sought, substantially increased care, time and resources are required to facilitate implementation than would be required for changes in content or organization.

iii) Changes to the curriculum may be made by implementers.

The National Diffusion Network survey of schools revealed that 20 percent of the adoptions resulted in large changes to the innovation. The literature on implementation reveals that varying degrees of changes are the norm as teachers are prone to adjust the curriculum to their own teaching style and/or the content to reflect their own predispositions or the needs of their pupils. For example, Lee and Wong (1985b) found in their case studies of curriculum implementation in Manitoba that reinventions occurred:

> At the teacher level, however, part of implementing curricula is the modification to suit the teacher's own style, the needs of particular student populations and/or different classroom organization (e.g., multi-graded setting). This development is, in fact, necessary at the classroom level if successful implementation is to be achieved. Teachers, however, are often unsure if this is a legitimate part of "using" or "implementing" the curriculum (p. 11).

Rogers (1985, pp. 176-7) credits two educators (Charters and Pelligrin, 1972) with launching a focus on "re-invention" of innovations during implementation. Because these investigators focused on implementation **processes**, and used observation, they discovered that "differentiated staffing" (the target innovation) was merely an empty abstraction to some participants and to others it was shaped markedly differently. Rogers notes that whether re-invention is good or bad depends on one's point of view. Diffusion agents tend to take a jaundiced view of changes. On the other hand adopters generally think that re-invention is good. Indeed, occasionally changes result in needed improvements when one considers local conditions.

Berman and McLaughlin (1978) in reporting on the successes and failures of the educational innovations examined in the RAND Corporation studies noted that local changes were significantly related to survival of the innovation. In the 400 projects studied, change and adaptation of the innovation occurred frequently and, when local modifications were made, the probability was enhanced that the innovation would be retained.

Any assumptions may be tenuous that mandated changes in curriculum have been implemented, particularly those that require marked changes in pedagogical practices. One implication for those responsible for managing and facilitating the change is that close scrutiny of the implementation is required if fidelity of implementation has priority. Kimpston (1985), Leinhard (1976), Leithwood (1982), Leithwood and Montgomery (1980), Orgren (1974), Smorodin (1984) and Welch and Wilson (1977) offer measurement scales and illustrations as aids in planning the monitoring of implementation. Revicki and others (1981) have reviewed and critiqued procedures for measuring program implementation.

iv) **Re-invention occurs at the implementation stage for certain innovations and for certain adopters**. Rogers (1983, p. 178) offers this generalization, based on the research on implementation. Applied to education some schools and districts, for example, may have a propensity to make changes. A survey of U.S. school districts (Martin and others, 1987) revealed that most respondents prefer home grown curricula developed by local committees. The Havelock (1974) survey revealed that local authorship credit was frequently assigned to innovations that were in fact developed elsewhere. Apparently local adaptation of curricula and re-invention are to be expected and central planners need to accommodate to this reality. Delegating development of teaching procedures to local jurisdictions is one such accommodation; outcome objectives may be prescribed centrally but the means for achieving these may be a local prerogative. Pride in local ownership is a factor which prompts modifications, perhaps in minor and cosmetic ways.

Other reasons for re-invention are listed by Rogers (1983) as follows:

- Innovations that are relatively more complex and difficult to understand are more likely to be re-invented.
- An innovation that is a general concept or that is a tool (like a computer) with many possible applications is more likely to be re-invented.
- Reinvention is more likely to occur with innovations implemented to solve a wide range of problems.
- Decentralized diffusion systems may encourage clients to re-invent new ideas (School district central office staff, who operate as gatekeepers to curriculum change, may inject their own modifications and encourage adaptations by the school).

5. **Confirmation** - The individual (or other decision-making unit) seeks reinforcement for an innovation-decision already made.

Confirmation is the final stage in the innovation-decision sequence. After implementation a decision may be taken to discontinue the innovation and 1) replace with an alternative, or 2) reject it entirely. Apparently later adopters are more likely to discontinue innovations than are earlier adopters.

Reinforcement should be provided as one of the follow-up activities by change agents to help maintain and sustain the change. Feedback to teachers, for example, is a powerful determinant concerning whether or not a practice will be maintained (Hoehn, 1969; Tuckman and others, 1969; Lippit, 1969; Seller, 1987; Lawrence, 1981; and Joyce and Showers, 1980). To be effective, feedback should be immediate and direct (Chirnside, 1984; Bridges, 1985) and should be supplemented with expert consultation (Cohen, 1980; Manatt, 1982; Murray, 1980).

SUPPORT ABOUT TEACHING STRATEGIES: DETAILED COMMENTS AND RATINGS BY PROGRAM

Charts 2 to 15 in this section provide considerable detail about the perceptions of users of curriculum guides and companion publications. Their comments and ratings about understandibility (difficulty) and usefulness and recommendations for changes in publications are displayed for each of the fourteen school programs addressed in the survey. The fine-grained detail displayed in Charts 2-15 will be most useful for those responsible for implementing a particular program or supporting such implementation. For readers more concerned about general policy aspects of curriculum implementation support publications the **Summary of Findings** section will be more useful.

Cautions due to small numbers need to be communicated to those interpreting the data displayed in some of Charts 2 to 15. Interviewees were asked if teaching strategies were addressed in the particular publication being critiqued. For 1-6 Health (Chart 2), for example, 16.7 percent (or only three) of the eighteen respondents replied "Yes, teaching strategies are addressed" in the curriculum guide. Only this small group of three were asked to rate the curriculum guide for understandability and usefulness on the topic of teaching strategies. All of this group (N=3, 100%) rated the guide at 5 = very easy for difficulty and at 5 = very useful. Apparently the trio responding affirmatively about the curriculum guide's provision of ideas about how to teach felt they could infer suggestions from the contents. The caution is that the 100 percent "very useful" and "very easy" ratings are based on a very small number of raters, some of whom may have confused the guide at this point of the interview with the teacher resource manual.

In like fashion the **Uses** sections of Charts 2-15 were intended to reflect the responses of only those who answered "Yes, teaching strategies are addressed in _____ publications". The percentages displayed were intended to be proportions of the group responding affirmatively, not the total group critiquing the publication. However, responses such as "I use the teacher Resource Manual only" and "I don't use for this purpose" indicated that some of those responding "No" had comments recorded as well. In any event, the percentages in the **Uses** sections of charts 2-15 are sometimes based on very small numbers and need to be interpreted accordingly. Only in the **Recommended Changes** section of Charts 2-15 are the total group's responses displayed; all were asked to suggest changes which might improve the support provided.

Chart 2 **Teaching Strategies Support in Curriculum Guides and Companion Publications: 1-6 Health.**

Responses to Interview Questions		Percentage of Responses: Curriculum Guide	Percentage of Responses: AE* Teacher Resource Manual	
Yes, teaching strategies addressed		16.7	100.0	
No, teaching strategies not addressed		83.3	0.0	
Uses:				
Planning instruction		26.7	83.3	
Use Teacher Resource Manual only		66.7	-	
Coping with individual differences		-	8.3	
Don't use for this purpose		6.7	-	
Long term planning, general overview only		-	8.3	
How understandable?				
On 5-point scale:	1 = very difficult	0.0	-	$\bar{x}$ = 4.8
Mean (average, $\bar{x}$) = 5.0	2 = difficult	0.0	-	S.D. = .40
Standard deviation (S.D.) = .00	3 = partly easy, partly difficult	0.0	-	N = 11
N = 3	4 = easy	0.0	18.2	
	5 = very easy	100.0	81.8	
How useful?				
On 5-point scale:	1 = very useless		-	$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 5.0	2 = useless		-	S.D. = .82
Standard deviation (S.D.) = .00	3 = parts are useful		18.2	N = 11
N = 3	4 = useful		9.1	
	5 = very useful	100.0	72.7	
Recommended changes				
Enhance specificity			7.1	
Color code to match guide		-	7.1	
Add/increase this feature in C. guide		22.2	-	
Leave "as is"; TR Manual sufficient		44.4	35.7	
Add/increase this feature in TR Manual		11.1	14.3	
Add/increase in either publication		-	7.1	
Provide more examples		-	14.3	
Prepare team developed teaching units		5.6	-	
Increase classroom applications		5.6	7.1	
Indicate clearly how to integrate		27.3	-	

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Chart 3 Teaching Strategies Support in Curriculum Guides and Companion Publications: 7-9 Health

Responses to Interview Questions		Percentage of Responses		
		Curriculum Guide	AE* Teacher Resource Manual	
Yes, teaching strategies addressed		10.0	83.3	
No, teaching strategies not addressed		90.0	16.7	
Uses:				
Planning instruction		5.9	50.0	
None, don't use for this purpose			6.3	
Use Teacher Resource Manual instead		70.6		
Planning problem solving tasks			6.3	
Remind myself about pupil development levels			12.5	
Aid in selecting resources		5.9		
Long term planning and general overview only		5.9		
Coping with individual differences			6.3	
Communicating with parents			6.3	
Also use Teacher Resource Manual		5.9		
Teacher needs a strong background to cope		5.9	6.3	
School counsellor has provided a set of lessons			6.3	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.9
Mean (average, $\bar{x}$) = 5.0	2 = difficult			S.D. = .30
Standard deviation (S.D.) = .00	3 = partly easy, partly difficult			N = 11
N = 2	4 = easy		9.1	
	5 = very easy	100.0	90.9	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.7
Mean (average, $\bar{x}$) = 4.0	2 = useless			S.D. = .65
Standard deviation (S.D.) = 1.4	3 = parts are useful	50.0	9.1	N = 11
N = 2	4 = useful		9.1	
	5 = very useful	50.0	81.8	
Recommended changes				
Leave "as is". Teacher Resource Manual sufficient		63.6	61.5	
Workshops on strategies needed as well as print		9.1	7.7	
Add this feature to C. Guide		13.6		
Add this feature to Teacher Res. Manual		4.5	15.4	
Add this feature to either Teacher Res. Manual or C. Guide			7.1	
Prepare teaching units and distribute		5.6		
Leave "as is"; C. Guide needs no change		5.6		

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Chart 4 **Teaching Strategies Support in Curriculum Guides and Companion Publications: CALM 20**

Responses to Interview Questions		Percentage of Responses: Curriculum Guide	Percentage of Responses: AE* Teacher Resource (Manual)	
Yes, teaching strategies addressed		23.5	100.0	
No, teaching strategies not addressed		76.5		
Uses:				
Planning instruction			73.3	
None; don't use for this purpose		7.7		
I use the Teacher Resource Manual instead		92.3		
Use to remind myself about developmental levels			20.0	
Coping with individual differences			6.7	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 5.0	2 = difficult			S.D. = .82
Standard deviation (S.D.) = .00	3 = partly easy, partly difficult		18.2	N = 11
N = 2	4 = easy		9.1	
	5 = very easy	100.0	72.7	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.3
Mean (average, $\bar{x}$) = 3.0	2 = useless		9.1	S.D. = 1.10
Standard deviation (S.D.) = .00	3 = parts are useful	100.0	18.2	N = 11
N = 2	4 = useful		9.1	
	5 = very useful		63.6	
Recommended changes				
Leave "as is"; Teacher Resource Manual adequate		55.6	88.9	
Add this feature to Teacher Res. Manual		5.6		
Add this feature to Teacher Res. Manual or C. Guide		11.1		
Provide central generic document on strategies		5.6		
Provide more examples		5.6		
Need guide reference page re: strategies for each unit			11.1	
Match strategies to learning outcomes		5.6		

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Chart 5 Teaching Strategies Support in Curriculum Guides and Companion Publications: 1-6 Language Arts

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Publisher's/District's TR Guide	
Yes, teaching strategies addressed		47.1	100.0	
No, teaching strategies not addressed		52.9		
Uses:				
Planning instruction		45.5	57.1	
None, I don't use for this purpose		18.2	14.3	
Other sources used		4.5		
As reminders about pupils' development levels		4.5		
Printing or cursive writing		13.6		
Long term planning and general overview only		9.1		
Coping with individual differences			14.3	
Planning time allotments		4.5		
After initial reading and study - I don't use			14.3	
How understandable?				
On 5-point scale:	1 = very difficult	6.7		x̄ = 4.6
Mean (average, x̄) = 4.1	2 = difficult			S.D. = .55
Standard deviation (S.D.) = 1.19	3 = partly easy, partly difficult	20.0		N = 5
N = 15	4 = easy	20.0	40.0	
	5 = very easy	53.3	60.0	
How useful?				
On 5-point scale:	1 = very useless	6.7		x̄ = 4.2
Mean (average, x̄) = 3.7	2 = useless	6.7		S.D. = 0.84
Standard deviation (S.D.) = 1.11	3 = parts are useful	20.0	20.0	N = 5
N = 15	4 = useful	46.7	40.0	
	5 = very useful	20.0	40.0	
Recommended changes				
Increase specificity		7.0	14.3	
Make objectives more explicit		5.3	14.3	
Add teaching strategies to curriculum guide		10.5	42.9	
Include teaching strategies in a Teacher Resource Manual		15.8		
Include teaching strategies in either Teacher Res. Man. or C. Guide		7.0		
Leave "as is"; curriculum guide adequate		3.5		
Prepare teaching units		5.3		
Prepare more examples and include		5.3	14.3	
Add more practical classroom applications		12.3		
Illustrate clearly how to integrate i.e., how to teach for multiple skills and understandings		7.0		
Provide a central, multi-subject publication		3.5		
Update/expand resource listings re: strategies		5.3		
Match strategies to learning outcomes		3.5		
Complementary inservices are needed		1.8		
Provide central multi-subject document re: integration		3.5		
Add computer networking facility		1.8		
Inservice is essential re: strategies		1.8		
Need more specific suggestions re: processes such questioning, discussions, conferences (use videotapes)			14.3	

Chart 6 Teaching Strategies Support in Curriculum Guides and Companion Publications: 7-9 Language Arts

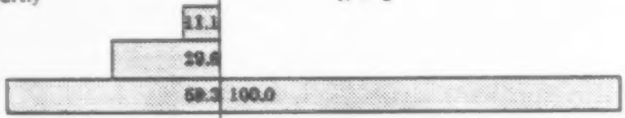
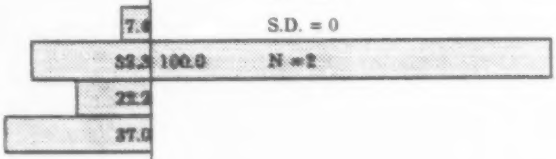
Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Integrations, Viewing Monographs
Yes, teaching strategies addressed		86.7	100.0
No, teaching strategies not addressed		13.3	
Uses:			
Planning instruction		55.6	100.0
None; I don't use for this purpose		8.3	
Use monograph and handbook instead		5.6	
Without recent training the curric. guide is not helpful		2.8	
As reminders about student development levels		5.6	
Long term planning and overview purposes only		8.3	
After initial reading and study -- I don't use		2.8	
For planning/doing evaluations		5.6	
Teacher needs a strong background to cope		2.8	
Re-format (across two pages)		2.8	
How understandable?			
On 5-point scale:	1 = very difficult		x̄ = 5.0
Mean (average, x̄) = 4.5	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .70	3 = partly easy, partly difficult	11.1	N = 2
N = 27	4 = easy	29.6	
	5 = very easy	59.3	100.0
How useful?			
On 5-point scale:	1 = very useless		x̄ = 3.0
Mean (average, x̄) = 3.8	2 = useless	7.4	S.D. = 0
Standard deviation (S.D.) = 1.01	3 = parts are useful	33.3	100.0 N = 2
N = 27	4 = useful	22.2	
	5 = very useful	37.0	
Recommended changes			
Increase specificity		9.1	
Make objectives more explicit		3.6	
Add/include this feature to curriculum guide		12.7	
Leave "as is" (Guide and monograph/handbook sufficient)		3.6	
Add to a teacher resource manual		5.5	
Include in either TR Manual or C. Guide		3.6	
Leave "as is" (Curriculum Guide sufficient)		12.7	
Prepare team developed teaching units		12.7	
Provide more examples		7.3	
Increase practical classroom applications		9.1	
Illustrate clearly how to integrate		5.5	
Provide a central multi-subject publication		3.6	
Update/expand resource listing re: strategies		3.6	
Complementary inservices on strategies are necessary		7.3	
Prepare teaching units and distribute			100.0

Chart 7 Teaching Strategies Support in Curriculum Guides and Companion Publications: 10-12 English

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Integration, Viewing, Monographs and Handbooks	
Yes, teaching strategies addressed		75.0	83.3	
No, teaching strategies not addressed		25.0	16.7	
Uses:				
Planning instruction		52.6	10.0	
None; I don't use for this purpose		26.3		
Long term planning and general overview only		5.3		
After initial reading and study -- I don't use		5.3		
Planning/doing evaluations		5.3		
Teacher needs a strong background to cope		5.3		
How understandable?				
On 5-point scale:	1 = very difficult			x̄ = 4.4
Mean (average, x̄) = 4.3	2 = difficult			S.D. = .79
Standard deviation (S.D.) = .88	3 = partly easy, partly difficult	26.7	20.0	N = 5
N = 15	4 = easy	20.0	20.0	
	5 = very easy	53.3	60.0	
How useful?				
On 5-point scale:	1 = very useless			x̄ = 4.4
Mean (average, x̄) = 3.5	2 = useless	20.0		S.D. = .79
Standard deviation (S.D.) = 1.13	3 = parts are useful	40.0	20.0	N = 5
N = 15	4 = useful	13.3	20.0	
	5 = very useful	26.7	60.0	
Recommended changes				
Increase specificity		3.4		
Include/add this feature to a TR Manual		27.6		
Include/add this feature to C. Guide or a TR Manual		17.2		
Leave "as is"		13.8	40.0	
Prepare team developed teacher resource units		6.9		
Provide more examples		10.3	20.0	
Increase practical classroom applications		3.4	20.0	
Illustrate clearly how to integrate		3.4		
Include time guidelines		6.9		
Provide central multi-subject document on integration		3.4		

Chart 8 Teaching Strategies Support in Curriculum Guides and Companion Publications: Reading 10

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Reading Monograph
Yes, teaching strategies are addressed		100.0	100.0
No, teaching strategies are not addressed			
Uses:			
Planning instruction		62.5	66.7
None; I don't use for this purpose		12.5	33.3
Long term planning or general overview only		25.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .53	3 = partly easy, partly difficult		N = 2
N = 7	4 = easy	42.9	
	5 = very easy	57.1	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 3.9	2 = useless	14.3	S.D. = 0
Standard deviation (S.D.) = 1.2	3 = parts are useful	28.6	N = 2
N = 7	4 = useful	14.3	
	5 = very useful	42.9	100.0
Recommended changes			
Leave "as is"; TR Manual (or inservice) sufficient			33.3
Add (or include) in TR Manual or C. Guide			33.3
Match strategies to outcomes			33.3
Increase specificity		16.7	
Make objectives more explicit		16.7	
Add (or include) in C. Guide		16.7	
Leave "as is"; C. Guide O.K. on this feature		16.7	
Provide more examples		8.3	
Increase practical classroom applications		16.7	
Mastery learning packages would be useful		8.3	

Chart 9 Teaching Strategies Support in Curriculum Guides and Companion Publications: 1-6 Math

		Percentage of Responses		
Responses to Interview Questions		**Curriculum Guide**	**Problem Solving Monograph**	**District or Publishers TR Guide**
Yes, teaching strategies are addressed		44.4		100.0
No, teaching strategies are not addressed		55.6		
Uses:				
Planning instruction		78.6		42.9
None; I don't use for this purpose		14.3		
Planning problem solving		7.1		
Use of calculators and/or manipulatives				28.6
Coping with individual differences				14.3
Planning time allotments				14.3
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.3
Mean (average, $\bar{x}$) = 4.3	2 = difficult			S.D. = 0.50
Standard deviation (S.D.) = 0.63	3 = partly easy, partly difficult	7.7		N = 4
N = 13	4 = easy	53.8		75.0
	5 = very easy	38.5		25.0
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.2
Mean (average, $\bar{x}$) = 3.7	2 = useless	15.4		S.D. = .84
Standard deviation (S.D.) = 1.03	3 = parts are useful	23.1		N = 4
N = 13	4 = useful	38.5		75.0
	5 = very useful	23.1		25.0
Recommended changes				
Increase specificity		9.5		
Leave "as is"; Publisher's manual sufficient		2.4		
Add this feature to curriculum guide		16.7		50.0
Add this feature to a teacher resource manual		14.3		
Add this feature to either teacher resource or C. Guide		9.5		
Leave "as is"; C. Guide adequate on this feature		4.8		50.0
Prepare team developed teaching units		2.4		
Provide more examples		9.5		
Increase practical classroom applications		9.5		
Illustrate clearly how to integrate		2.4		
Update/expand references re: strategies		4.8		
Quick reference page summarizing strategies for each unit		2.4		
Include time guidelines		2.4		
Add computer networking		2.4		
Add use of calculators/manipulatives		7.1		

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Chart 10 Teaching Strategies Support in Curriculum Guides and Companion Publications: 7-9 Math

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Problem Solving Monograph	District or Publishers TR Guide
Yes, teaching strategies are addressed		64.0	100.0	100.0
No, teaching strategies are not addressed		36.0		
Uses:				
Planning instruction		45.0	44.4	62.5
None; I don't use for this purpose		20.0		
I use publisher's resource manual instead		20.0		
Use of calculators and/or manipulatives		10.0		12.5
Long term planning and general overview only		5.0		
Coping with individual differences			11.1	12.5
Planning problem solving			33.3	
I use as reminders about pupil development			11.1	
How understandable?				
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.8	$\bar{x}$ = 4.4
Mean (average, $\bar{x}$) = 4.3	2 = difficult		S.D. = .45	S.D. = .55
Standard deviation (S.D.) = .72	3 = partly easy, partly difficult	13.3	N = 5	N = 5
N = 15	4 = easy	40.0	20.0	60.0
	5 = very easy	46.7	80.0	40.0
How useful?				
On 5-point scale:	1 = very useless	6.3	$\bar{x}$ = 4.8	$\bar{x}$ = 4.2
Mean (average, $\bar{x}$) = 3.2	2 = useless	6.3	S.D. = .45	S.D. = .45
Standard deviation (S.D.) = .93	3 = parts are useful	50.0	N = 5	N = 5
N = 16	4 = useful	31.3	20.0	80.0
	5 = very useful	6.3	80.0	20.0
Recommended changes				
Increase specificity		3.8		
Make objectives explicit		3.8		
Leave "as is"; publisher's TR Guide sufficient		19.2		50.0
Add this feature to a teacher resource manual		11.5		25.0
Add this feature to the TR Guide or TR Manual		26.9	40.0	
Leave "as is"; not required		7.7		
Leave "as is"; C. Guide adequate		3.8		
Provide more examples		3.8		
Match teaching suggestions with publisher's manual		3.8		
Include time guidelines		3.8		
Complementary inservices on strategies needed		3.8		25.0
Include plans for early implementation of new programs		3.8		
Add computer networking		3.8		
Add more techniques re: problem solving			20.0	
Update/expand tecahing stragtegies			20.0	
Provide student handouts			20.0	

Chart 11 Teaching Strategies Support in Curriculum Guides and Companion Publications: 10-12 Math

Responses to Interview Questions		Percentage of Responses	
		Curriculum Guide	Problem Solving Monograph
Yes, teaching strategies are addressed		46.7	100.0
No, teaching strategies are not addressed		53.3	
Uses:			
Planning instruction		9.1	50.0
None; I don't use for this purpose		90.9	50.0
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 4.4	2 = difficult		S.D. = .71
Standard deviation (S.D.) = .88	3 = partly easy, partly difficult	22.2	N = 2
N = 9	4 = easy	11.1	50.0
	5 = very easy	66.7	50.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.7	2 = useless		S.D. = 1.4
Standard deviation (S.D.) = .87	3 = parts are useful	55.6	50.0 N = 2
N = 9	4 = useful	22.2	
	5 = very useful	22.2	50.0
Recommended changes			
Increase specificity		5.3	
Make objectives more explicit		5.3	
Leave "as is"		5.3	
Add this feature to the curriculum guide		15.8	
Add this feature to TRM or curriculum guide		26.3	
Leave "as is"; not required		26.3	
Increase practical classroom applications		5.3	
Illustrate clearly how to integrate		5.3	
Complementary inservice on strategies is necessary		5.3	
Leave "as is"; monograph is adequate			100.0

Chart 12 Teaching Strategies Support in Curriculum Guides and Companion Publications: 7-9 Science

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses Publisher's/District's TR Guide
Yes, teaching strategies are addressed		15.8	33.3
No, teaching strategies are not addressed		84.2	66.7
Uses:			
Planning instruction		33.3	50.0
Use of lab experiments			50.0
None; I don't use for this purpose		33.3	
Aid for selecting resources or field trips		33.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.3	2 = difficult		S.D. = 0
Standard deviation (S.D.) = 1.2	3 = partly easy, partly difficult	33.3	N = 1
N = 3	4 = easy		
	5 = very easy	66.7	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.0	2 = useless		S.D. = 0
Standard deviation (S.D.) = 2.0	3 = parts are useful	33.3	N = 1
N = 3	4 = useful		100.0
	5 = very useful	33.3	
Recommended changes			
Add (or include) in TR Manual		20.8	66.7
Leave "as is"; C. Guide O.K. on this feature			33.3
Increase specificity		4.2	
Make objectives more explicit		4.2	
Add (or include) in C. Guide		20.8	
Add (or include) in TR Manual or C. Guide		16.7	
Leave "as is"; not required		4.2	
Prepare teaching units		4.2	
Increase practical classroom applications		4.2	
Update/expand resources/references re: strategies		8.3	
Quick reference summary page for each unit re: strategies		4.2	
Elaborate about topics such as scientific processes, philosophy of science, etc.		4.2	
Complementary inservices are needed		4.2	

Chart 13 Teaching Strategies Support in Curriculum Guides and Companion Publications: French 10-30

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource
Yes, teaching strategies are addressed		64.3	
No, teaching strategies are not addressed		35.7	100.0
Uses:			
Planning instruction		45.5	
None; I don't use for this purpose		45.5	
I also use the TR Manual		9.1	
How understandable?			
On 5-point scale:	1 = very difficult		
Mean (average, x̄) = 4.3	2 = difficult		
Standard deviation (S.D.) = .87	3 = partly easy, partly difficult	22.2	
N = 9	4 = easy	22.2	
	5 = very easy	55.6	
How useful?			
On 5-point scale:	1 = very useless	11.1	
Mean (average, x̄) = 3.1	2 = useless	11.1	
Standard deviation (S.D.) = 1.2	3 = parts are useful	44.4	
N = 9	4 = useful	22.2	
	5 = very useful	11.1	
Recommended changes			
Leave "as is"; TR Manual sufficient			100.0
Make objectives more explicit		7.1	
Add (or include) in C. Guide		21.4	
Add (or include) in TR Manual		14.3	
Add (or include) in TR Manual or C. Guide		14.3	
Leave "as is"; not required		7.1	
Leave "as is"; C. Guide O.K. on this feature		7.1	
Prepare teaching units		7.1	
Provide more examples		7.1	
Increase practical classroom applications		14.3	

Chart 14 Teaching Strategies Support in Curriculum Guides and Companion Publications: 1-6 Drama

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource
Yes, teaching strategies are addressed		100.0	100.0
No, teaching strategies are not addressed			
Uses:			
Planning instruction		50.0	100.0
None; I don't use for this purpose		16.7	
Without recent training the curriculum guide is not helpful		16.7	
Planning time allotments		16.7	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.3
Mean (average, $\bar{x}$) = 4.4	2 = difficult		S.D. = .58
Standard deviation (S.D.) = .89	3 = partly easy, partly difficult	20.0	N = 3
N = 5	4 = easy	20.0	66.7
	5 = very easy	60.0	33.3
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.4	2 = useless		S.D. = 1.0
Standard deviation (S.D.) = .55	3 = parts are useful		33.3 N = 3
N = 5	4 = useful	60.0	33.3
	5 = very useful	40.0	33.3
Recommended changes			
Leave "as is"; TR Manual sufficient			50.0
Add (or include) in TR Manual			16.7
Provide more examples			33.3
Increase specificity		14.3	
Add (or include(on TR Manual or C. Guide		14.3	
Leave "as is"; C. Guide O.K. on this feature		28.6	
Prepare teaching units		14.3	
Illustrate clearly how to integrate		28.6	

Chart 15 Teaching Strategies Support in Curriculum Guides and Companion Publications: 10-30 Art

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource	
Yes, teaching strategies are addressed		80.0	100.0	
No, teaching strategies are not addressed		20.0		
Uses:				
Planning instruction		30.0	66.7	
None; I don't use for this purpose		25.0		
I use Teacher Resource Manual instead		5.0		
Without recent training the curriculum guide is not helpful		15.0		
Aid for selecting resources or field trips		5.0		
Need a strong background to cope		66.7	33.3	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 4.1	2 = difficult	16.7		S.D. = 0
Standard deviation (S.D.) = 1.2	3 = partly easy, partly difficult	8.3	100.0	N = 1
N = 12	4 = easy	25.0		
	5 = very easy	50.0		
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 3.6	2 = useless	16.7		S.D. = 0
Standard deviation (S.D.) = 1.2	3 = parts are useful	41.7	100.0	N = 1
N = 12	4 = useful	8.3		
	5 = very useful	33.3		
Recommended changes				
Increase specificity		9.1		
Make objectives more explicit		4.5		
Leave "as is"; TR Manual (or inservice) sufficient		4.5		
Add (or include) in TR Manual		4.5		
Add (or include) in TR Manual or C. Guide		9.1		
Leave "as is"; C. Guide O.K. on this feature		13.6		
Increase practical classroom applications		4.5		
Illustrate clearly how to integrate		4.5		
Variations in physical facilities need to be recognized; many schools have inappropriate or inadequate settings		18.2	33.3	
Match strategies to outcomes		4.5		
Complementary inservices are needed as a supplement		13.6	33.3	
Inservice is essential for addressing teaching strategies		4.5	33.3	

*Alberta Education

CURRICULUM PUBLICATIONS SUPPORT FOR TEACHING STRATEGIES: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

This portion of the school interviews asked respondents to describe the uses, understandibility and usefulness of information about teaching strategies (if this was a component) in curriculum guides and companion support publications. All respondents were then given an opportunity to recommend any changes (including additions or deletions) to information provided about how to teach. The overall findings outlined below refer to publications provided for the fourteen programs referred to throughout the survey.

Teaching strategies was considered a component in curriculum guides by 52.4 percent of the total respondent group. Many replied with a qualified "Yes" since the topic was seldom felt to be treated in a comprehensive manner in curriculum guides. Relative to "usefulness", ratings overall averaged 3.6 (midway between "parts are useful" and "useful" on the 5-point scale). The Health programs, 1-6 Drama and 7-9 Language Arts were rated highest on this feature.

Teaching strategies was considered a component in companion publications by nearly all who critiqued monographs, handbooks and teacher resource manuals. However, as with curriculum guides, some of the treatments about how to teach were considered very general and cursory. The highest ranked Alberta Education support publications in terms of usefulness were the Reading 10 monograph and the resource manuals in 1-6 Drama, Health and CALM 20.

Preferred locations for teaching strategies information (in curriculum guides or companion documents such as teachers' resource manuals, or both) were equally divided. No clear direction was provided by the respondents on this matter. **Most satisfaction relative to teaching strategies information** was reported for the publications distributed for 1-6 Health, 7-9 Health and Personal Life Skills and Career and Life Management 20 (CALM 20). Secondary math documents were ranked second; the publishers teachers' guides and Alberta Education problem solving monograph was mentioned for 7-9 Math and a substantial minority (31.8%) of 10-12 Math teachers reported this information as "not required -- leave as is". Elementary Drama publications also received a heavy vote for leaving this topic "as is" in existing publications. For the remaining subjects additional teaching strategies suggestions appear to be sought in existing documents.

Generalizations from the research are useful in suggesting which types of support are likely to be most effective. If minor, cosmetic, or updating changes in program content are the revisions that need to be accommodated then **provision of knowledge** about the change may suffice. Earlier in this report it was concluded and recommended that the requisite knowledge can and should be provided by existing means such as support publications, applications of various technologies and the "one-shot' regional and local orientation seminars. However, for substantive changes in the role of the teacher or in pedagogical practice the simple provision of knowledge about the changes, while necessary, is not sufficient. The individuals and groups asked to make the changes need to be assisted through the remaining stages formulated by Rogers (1983); namely, **Persuasion, Decision, Implementation and Confirmation**. For theses stages support from peers, sequenced inservices, audio-visual kits for self-study and group sessions, and consultation and feedback from supervisors and colleagues are needed.

Comments about uses for curriculum support publications relative to teaching strategies were recorded for both curriculum guides and the companion publications. Comments made by three percent or more of the total school-based group were as follows (Table 15):

Table 15 Teaching Strategies: Current Uses of Curriculum Publications.

Interview Statements Re: Use for Teaching Suggestions	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Planning instruction	47.3	83.3
None; I don't use for this purpose	22.9	5.4
I use the companion document instead	21.0	
Use of calculators or manipulatives or labs	1.0	5.4
Long term planning or general overview only	5.4	0.9
Coping with individual differences	-	13.5
Communicating to parents	-	2.7
Need a strong background to cope	2.9	-

As expected, companion documents such as teacher resource manuals, monographs and handbooks are used much more frequently than curriculum guides for ideas about how to teach. As noted earlier, opinion is equally divided concerning where this information should be placed. Also, as noted earlier, this type of information needs to be augmented in publications for all programs except Health, CALM 20, secondary mathematics and 1-6 Drama.

Recommended changes in teaching suggestions were recorded in the school interviews for each of curriculum guides and other support publications. Table 16 reports the recommendations contributed by more than three percent of the total group.

Table 16 Teaching Strategies: Recommended Changes in Curriculum Publications.

Interviewees' Recommendations Re: Changes/Additions/Deletions	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Increase specificity	10.2	5.1
Make objectives more explicit	7.1	-
Color code same as C. Guide		4.1
Leave "as is"; Companion document O.K.	16.9	56.1
Add to or include in C. Guide	18.9	-
Add to or include in T.R. Manual	16.5	10.2
Add to or include in either C. Guide or T.R. Manual	15.4	2.0
Leave "as is"; C. Guide satisfactory	11.0	-
Prepare and distribute teaching units	8.7	2.0
Provide more examples	7.5	10.2
Increase practical classroom applications	11.4	5.1
Illustrate clearly how to integrate	7.1	-
Update/expand resources/references listings about strategies	3.5	3.1
Need more specific suggestions about processes such as questioning, discussions, conferences (use videotapes)	-	3.1
Handouts are demeaning for junior high; they look elementary	-	5.1
Interchange among teachers valuable	2.0	6.1
Complementary inservices are needed	6.3	9.1

Preferred locations for teaching suggestions noted in Table 16 were reported earlier. About two thirds expressed that the topic should be included and only 11.0 percent overall felt that present arrangements were satisfactory (mainly in Drama, Health, CALM 20 and secondary math). Other suggestions which predominated were need for more examples and classroom applications, teaching units and complementary inservice on how to teach. For subjects calling for integration clear illustrations about how to do this were requested.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of data obtained from the interviews, generalizations from the research, and the judgments of the study team we conclude:

C 5.1 That suggestions about teaching strategies are routinely needed in some support publication associated with each school program;

C 5.2 That additional support about how to teach is needed when the new program or revision requires pronounced changes in teaching roles and pedagogical practices;

C 5.3 That strategies associated with some goals clearly cross program boundaries, e.g., integrating skills and understandings, developing thinking skills, individualizing and differentiating instruction, developing adequate self-images, etc.

It is recommended:

R 5.1 That practical suggestions about how to teach to achieve selected specific objectives be included in some curriculum implementation support publication associated with each program;

R 5.2 That for new programs or revisions which require marked changes in teaching roles and practices, in addition to clear rationales and descriptions about the why and how of implementation (knowledge), other supports be considered: e.g., peer networking provisions; sequenced inservice; audio-visual kits including illustrations of classroom practices, for use by individuals and small groups; consultation and feedback;

R 5.3 That generic, multi-subject monographs be considered which describe and illustrate general teaching strategies which could be applied in several or all programs.

ACCOMMODATIONS FOR INDIVIDUAL DIFFERENCES

Accommodating individual differences among pupils by individualizing and differentiating instruction has been a chronic and pervasive problem area for all groups in education responsible for curriculum implementation. Accordingly, this topic was included in the school interview schedule as one of the potential specific components of curriculum support publications.

INDIVIDUAL DIFFERENCES AS A COMPONENT IN CURRICULUM GUIDES

A relatively small proportion (26.7%) of those interviewed at the schools felt that the curriculum guide which they were critiquing contained any aid at all on this topic (Table 17). A still smaller proportion (22.7%) perceived that companion support publications provided relevant help. Senior high school teachers frequently pointed out that the organization of programs by levels (e.g., 10-20-30; 13-23-33; 15, 25 etc.) ameliorated needs of this type considerably. However, even with the use of levels, teachers in the 13-23 courses, for example, frequently mentioned the wide diversity of entry skills' levels and learning style preferences evident in their classes.

Table 17 displays the perceptions that the school-based respondents communicated about the extent and usefulness of information concerning accommodating individual differences found in the curriculum guide for the program being rated.

Table 17 Curriculum Guides Containing Suggestions for Accommodating Individual Differences

Program	Percentage "Yes" Responses	Usefulness Rating*	
		Mean	(N)
ECS Philosophy, Goals . . .	25.0	2.0	(1)
1-6 Health	29.4	3.5	(2)
1-6 Language Arts	27.3	2.7	(9)
1-6 Math	18.5	3.3	(3)
1-6 Drama	50.0	3.7	(3)
7-9 Language Arts	32.3	3.0	(9)
7-9 Math	44.0	3.3	(8)
7-9 Science	11.8	5.0	(1)
7-9 Health and PL Skills	26.3	3.3	(6)
Reading 10	37.5	3.3	(3)
CALM 20	18.8	3.0	(2)
10-12 Math	11.8	4.0	(2)
10-12 English	23.8	3.0	(4)
Art 10-30	46.2	3.4	(7)
French 10-30	7.1	5.0	(1)
Totals (weighted averages)	**26.7**	**3.3**	**(63)**

*Note: usefulness ratings were based on the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful

The average usefulness rating was in the "3" category: "parts are useful". However, the ratings need to be interpreted cautiously since, in some cases, only one, two or three from a group answered "Yes, individual differences are addressed", and only this sub-group applied a rating.

ACCOMMODATING INDIVIDUAL DIFFERENCES AS A COMPONENT IN COMPANION PUBLICATIONS

The time allotted for some interviews was sufficient to allow some to respond about the support publications which complemented and supplemented curriculum guides. Some of these companion documents were provided by Alberta Education and others by a publisher. Table 18 provides information about the proportion responding "Yes -- accommodations for individual differences are mentioned in the publication" and the usefulness ratings (the latter ratings are reported within parentheses).

Table 18 Companion Publications Containing Information Re: Accommodating Individual Differences

Program	Alberta Education % Yes (usefulness*)		Publisher's % Yes (usefulness*)
	Monograph, Handbook	Resource Manual	Resource Guide or Manual or Supplement
1-6 Health		20.0 (4.0)	
1-6 Language			40.0 (2.5)
1-6 Drama		25.0 (4.0)	
1-6 Math	-	-	25.0 (4.0)
7-9 Language	100.0 (3.0)	-	25.0 (4.5)
7-9 Math	33.3 (3.0)	-	60.0 (3.7)
7-9 Health		25.0 (4.7)	
Reading 10	100.0 (5.0)		-
10-12 Math	50.0 (5.0)	-	-
Art 10-30	-	-	-
French 10-30		50.0 (3.0)	-
7-9 Science	-	-	100.0 (-)
CALM 20	-	27.3 (5.0)	-
10-12 English	-	-	100.0 (3.5)

*Note: usefulness ratings are recorded within parentheses, are sometimes based on small numbers and applied the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

As with curriculum guides, relatively few teachers felt that ideas about individualizing and differentiating instruction were presented in the supplementary publications. The few that recorded "Yes", however, rated the information they found there relatively high for usefulness in some cases e.g., in Reading 10, and 10-12 Math (extension/enrichment problems).

PREFERRED LOCATIONS FOR INDIVIDUAL DIFFERENCES INFORMATION

Answers to the request for recommended changes, including additions and deletions, to the information about managing individual differences are partially displayed in Table 19. As with the teaching strategies topic, opinion is divided about placing these suggestions in a particular document. Here too, little guidance is communicated to policy makers about where to locate this information, although curriculum guides are ranked last.

Satisfaction levels relative to information about individual differences in existing publications can be inferred from the "leave as is" data entered in the right hand column of Table 19. The highest satisfaction levels are recorded for 1-6 Drama, Art 10-30, 1-6 Health, 7-9 Health and Personal Life Skills, Reading 10 followed by CALM 20 and 7-9 Math. The publisher's teachers guide was reported to be useful in differentiating instruction in junior high math, hence the 30.3% vote for not requiring more information. Programs ranked low on this feature were all the English Language Arts, 1-6 Math, and 7-9 Science. For these last-named, additional information about accommodating individual differences is sought. One suggestion was readability indices for novels and references. Other suggestions were provision of references to high-interest low-vocabulary volumes. References, resources and techniques were asked for throughout that would aid in providing enrichment and in planning instruction for slow learners.

Other publications rated highly on the information included about individual differences were mentioned by very few respondents. Over forty percent chose not to list any, claiming they were not sufficiently familiar with publications in other programs. Fifty percent responded "none", explaining that it is a topic simply not addressed in any publication. A single subject, Secondary Physical Education, received more than four mentions; ten named the guide and/or the evaluation monograph.

Table 19 Locations and Changes to Information about Individual Differences: Percentages of Total Recommendations

Program	Add to and/or Retain in:				Leave "as is"			
	Teacher Resource Manual*	Curric. Guide	either TRM* or C. Guide	Total %	Teacher Resource Manual*	Curric. Guide	Not required	Total %
1-6 Health	11.8	5.9	17.1	34.8			47.1	47.1
7-9 Health	28.6	4.8		33.4			47.6	47.6
CALM 20	17.6		17.6	35.2			29.4	29.4
1-6 Language Arts	25.7	11.4	17.1	54.2			2.9	2.9
7-9 Language Arts	24.4	4.9	12.2	41.5			12.2	12.2
10-12 English	5.4		24.3	29.7			16.2	16.2
Reading 10	11.1	11.1	11.1	33.3			33.3	33.3
1-6 Math	15.8	10.5	23.7	50.0			7.9	7.9
7-9 Math	15.2	6.1	3.0	24.3			30.3	30.3
10-12 Math		20.8	12.5	33.3			20.8	20.8
7-9 Science	19.2	7.7		26.9			3.8	3.8
French 10-30	25.0	12.5	12.5	50.0			25.0	25.0
1-6 Drama		25.0	25.0	50.0			50.0	50.0
Art 10-30	8.3	16.7	16.7	41.7			50.0	50.0
% of Total Recommendations	15.8	7.8	15.6	**39.2**			21.7	**21.7**
% of Total Respondents	22.0	10.8	21.6	**54.4**			30.1	**30.1**

*Note: Teacher Resource Manual (TRM) refers to either an Alberta Education document (or monograph) existing or needed, or a publisher's manual. The breakdown by origin is noted in Charts 2-57.

THE RESEARCH ABOUT CONCERN FOR STUDENTS AND CURRICULUM IMPLEMENTATION

The types of needs uncovered during implementation, when compared to teachers' initial concerns, indicated marked increases related to student capabilities and interests, the evaluation of student achievement and learning resources (Table 8). Student capabilities and interests (accommodating to individual differences) have been addressed in this section of the report. Evaluation of student achievement and learning resources (References and Referencing) are the respective topics in the next two sections.

The observation during this study that these types of needs are manifested during middle and later stages of curriculum implementation is consistent with the research associated with the development and use of the **Concerns-Based Adoption Model (CBAM)** (Hall et al., 1975; Hall and Loucks, 1976, 1978; Hall et al., 1977; Loucks and others, 1975; Miller and Seller, 1985, pp. 249-264; Harvey Research, 1988, pp. 30-34). It is also congruent with findings derived from the use of the **Innovations Profile Model** (Leithwood and Montgomery, 1980) which is a successor adapted from the **CBAM.**

These formulations facilitate conceptualizing, measuring and studying the stages in the sequence that curriculum implementers pass through. It is noteworthy that the findings from this survey parallel the stages of concern and levels of use concerning new curricula that the research reports teachers experience. The review of relevant research undertaken as part of this study describes in detail these stages of concern and levels of use (Harvey Research, 1980, pp. 30-34).

SUPPORT ABOUT INDIVIDUAL DIFFERENCES: DETAILED COMMENTS AND RATINGS BY PROGRAM

Charts 16 to 29 that follow provide considerable detail about the perceptions of users of curriculum guides and supplementary documents on topics related to individual differences among pupils. For readers with responsibilities for particular programs the detail about uses, understandibility, utility and recommendations for change may be useful. Those concerned with the overall findings, with little reference to publications related to particular programs, will find the Summary section relatively more useful.

Once again, cautions about small numbers need to be communicated. Only those respondents who answered "Yes" to whether the topic of individual differences was contained in a publication listed uses and assigned ratings. Often these were few in number. However, all had an opportunity to recommend changes.

Chart 16 Individual Differences Support in Curriculum Guides and Companion Publications: 1-6 Health

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource (Manual)	
Yes, individual differences are addressed		29.4	20.0	
No, individual differences are not addressed		70.6	80.0	
Uses:				
For planning differentiated instruction and teaching low achievers		20.0	40.0	
Not appropriate/not needed in this course			60.0	
Planning instruction generally		20.0		
I use TR Manual or Monograph instead		40.0		
Individualizing only mentioned generally, therefore lacks practicality and usefulness		20.0		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 5.0	2 = difficult			S.D. = 0
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult			N = 2
N = 2	4 = easy			
	5 = very easy	100.0	100.0	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.5	2 = useless			S.D. = 1.4
Standard deviation (S.D.) = .71	3 = parts are useful	50.0	50.0	N = 2
N = 2	4 = useful	50.0		
	5 = very useful		50.0	
Recommended changes				
Need ideas for coping with low achievers			10.0	
Add (include) in TR Manual		11.8	20.0	
Leave "as is"		47.1	50.0	
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary reading material			10.0	
Add suggestions for enrichment or coping with various learning styles		5.9	10.0	
Suggest how to cope with large classes and heavy loads		5.9		
Add (include) this feature in C. Guide		5.9		
Add (include) in either TR Manual or C. Guide		17.1		
Ranges could be specified, provincially or locally		5.9		

Chart 17 **Individual Differences Support in Curriculum Guides and Companion Publications: 7-9 Health**

		Percentage of Responses		
Responses to Interview Questions		**Curriculum Guide**	**AE Teacher Resource** (Manual)	
Yes, individual differences are addressed		26.3	25.0	
No, individual differences are not addressed		73.7	75.0	
Uses:				
Planning instruction generally		42.9	33.3	
Assists in identifying development stages		14.3	16.7	
For planning differentiated instruction and teaching low achievers			33.3	
Not appropriate/not needed in this course		28.6	16.7	
Too general (or obscure, or brief) to be recognizable		14.3		
How understandable?				
On 5-point scale:	1 = very difficult			x̄ = 4.7
Mean (average, x̄) = 4.5	2 = difficult			S.D. = .58
Standard deviation (S.D.) = .55	3 = partly easy, partly difficult			N = 3
N = 6	4 = easy	50.0	33.3	
	5 = very easy	50.0	66.7	
How useful?				
On 5-point scale:	1 = very useless			x̄ = 4.7
Mean (average, x̄) = 3.3	2 = useless	33.3		S.D. = .58
Standard deviation (S.D.) = 1.4	3 = parts are useful	33.3		N = 3
N = 6	4 = useful		33.3	
	5 = very useful	33.3	66.7	
Recommended changes				
Add (include) in TR Manual		28.6	22.2	
Leave "as is"		47.6	55.6	
Ranges could be specified, provincially or locally			11.1	
Limit suggestions to make selection easier			11.1	
Need ideas for coping with low achievers		4.8		
Add (include) this feature in C. Guide		4.8		
Need a proficiency levels document		4.8		
Add suggestions for enrichment or coping with various learning styles		4.8		
Provide tests from which teachers can select		4.8		

Chart 18 Individual Differences Support in Curriculum Guides and Companion Publications: CALM 20

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource (Manual)	
Yes, individual differences are addressed		18.8	27.3	
No, individual differences are not addressed		81.3	72.7	
Uses:				
Planning instruction generally		14.3	25.0	
Assists in identifying development stages			12.5	
Individualizing is only mentioned generally, therefore it lacks practicality and utility		14.3	12.5	
For planning differentiated instruction and teaching low achievers			37.5	
Not appropriate/not needed in this course		14.3	12.5	
I use TR Guide instead		42.9		
Selecting strategies for I.O.P. pupils		14.3		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.5	2 = difficult			S.D. = 0
Standard deviation (S.D.) = .71	3 = partly easy, partly difficult			N = 4
N = 2	4 = easy	50.0		
	5 = very easy	50.0	100.0	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.3
Mean (average, $\bar{x}$) = 3.0	2 = useless	50.0	25.0	S.D. = 1.5
Standard deviation (S.D.) = 1.4	3 = parts are useful			N = 4
N = 2	4 = useful	50.0		
	5 = very useful		75.0	
Recommended changes				
Need ideas for coping with low achievers		5.9	8.3	
Insert about the use of student contracts to help differentiate and provide alternatives			8.3	
Add (include) in either TR Manual or C. Guide		17.6		
Leave "as is"		29.4	33.3	
Emphasize practical suggestions		5.9	8.3	
Add suggestions for enrichment and various learning styles		17.6	16.7	
Enhance specificity re: sequencing and progressive coverage			8.3	
Add (include) in TR Manual		17.6		
Ranges could be specified provincially or locally		5.9	16.7	

Chart 19 Individual Differences Support in Curriculum Guides and Companion Publications: 1-6 Language Arts

		Percentage of Responses		
Responses to Interview Questions		**Curriculum Guide**	**Publisher's/District's TR Guide**	
Yes, individual differences are addressed			40.0	
No, individual differences are not addressed			60.0	
Uses:				
Planning instruction generally		13.3	16.7	
Too general (or obscure, or brief) to be recognizable		26.7	16.7	
Individualizing only mentioned generally, therefore lacks practicality and usefulness		6.7	33.3	
For planning differentiated instruction and teaching low achievers Differences among		6.7	33.3	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.4	2 = difficult	11.1		S.D. = 0
Standard deviation = .88	3 = partly easy, partly difficult	44.4		N = 2
N = 9	4 = easy	33.3	100.0	
	5 = very easy	11.1		
How useful?				
On 5-point scale:	1 = very useless	22.2		$\bar{x}$ = 2.5
Mean (average, $\bar{x}$) = 2.7	2 = useless	11.1	50.0	S.D. = .71
Standard deviation (S.D.) = 1.12	3 = parts are useful	44.4	50.0	N = 2
N = 9	4 = useful	22.2		
	5 = very useful	–		
Recommended changes				
Need ideas for coping with low achievers		2.9	16.7	
Add (include) in TR Manual		25.7	16.7	
Leave "as is"		2.9	33.3	
Emphasize practical suggestions		5.7	16.7	
Add suggestions for enrichment or coping with various learning styles		8.6	16.7	
Need a central multi-subject manual re: accommodating individual differences		11.4		
Add (include) this feature in C. Guide		11.4		
Add (include) in either TR Manual or C. Guide		17.1		
Limit suggestions to make selection easier		2.9		
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings		2.9		
Enhance specificity re: sequencing and progressive coverage		2.9		
Provide central multi-subject manual on individual differences		5.7		

Chart 20 Individual Differences Support in Curriculum Guides and Companion Publications: 7-9 Language Arts

Responses to Interview Questions		Percentage of Responses	
		Curriculum Guide	AE* Viewing/Integration Monographs
Yes, individual differences are addressed			100.0
No, individual differences are not addressed			
Uses:			
I use philosophy and rationale		16.7	100.0
Planning instruction generally		33.3	
Assists in identifying development stages		8.3	
Too general (or obscure, or brief) to be recognizable		8.3	
Individualizing only mentioned generally, therefore lacks practicality and usefulness		8.3	
For planning differentiated instruction and teaching low achievers		16.7	
I don't use for this purpose		8.3	
How understandable?			
On 5-point scale:	1 = very difficult	–	$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 3.89	2 = difficult	22.2	S.D. = 0
Standard deviation (S.D.) = 1.27	3 = partly easy, partly difficult	11.1	N = 2
N = 9	4 = easy	22.2	
	5 = very easy	44.4	100.0
How useful?			
On 5-point scale:	1 = very useless	–	$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 3.0	2 = useless	44.4	S.D. = 0
Standard deviation (S.D.) = 1.22	3 = parts are useful	33.3	100.0 N = 2
N = 9	4 = useful	–	
	5 = very useful	22.2	
Recommended changes			
Leave "as is"		12.2	100.0
Suggest how to cope with large classes and heavy loads		4.9	
Need a central multi-subject manual re: accommodating individual differences		12.2	
Need ideas for coping with low achievers		2.4	
Add (include) this feature in C. Guide		4.9	
Add (include) in TR Manual		24.4	
Add (include) in either TR Manual or C. Guide		12.2	
Need a proficiency levels document		9.8	
Ranges could be specified, provincially or locally		2.4	
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings		2.4	
Emphasize practical suggestions		2.4	
Add suggestions for enrichment or coping		7.3	
Provide central multi-subject manual or individual differences		2.4	

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Chart 21 Individual Differences Support in Curriculum Guides and Companion Publications: 10-12 English

Responses to Interview Questions		Percentage of Responses Curriculum Guide	
Yes, individual differences are addressed		23.8	
No, individual differences are not addressed		76.2	
Uses:			
Planning instruction generally		15.4	
Assists in identifying development stages		15.4	
I use philosophy and rationale		7.7	
Too general (or obscure, or brief) to be recognizable		15.4	
Need videotapes about effective teaching practices		15.4	
Individualizing only mentioned generally, therefore lacks practicality and usefulness		15.4	
For planning differentiated instruction and teaching low achievers		15.4	
How understandable?			
On 5-point scale:	1 = very difficult		x̄ =
Mean (average, x̄) = 3.8	2 = difficult		S.D. =
Standard deviation (S.D.) = .96	3 = partly easy, partly difficult	50.0	N =
N = 4	4 = easy	25.0	
	5 = very easy	25.0	
How useful?			
On 5-point scale:	1 = very useless	25.0	x̄ =
Mean (average, x̄) = 3.0	2 = useless		S.D. =
Standard deviation (S.D.) = 1.6	3 = parts are useful	50.0	N =
N = 4	4 = useful		
	5 = very useful	25.0	
Recommended changes			
Suggest how to cope with large classes and heavy loads		8.1	
Need a central multi-subject manual re: accommodating individual differences		5.4	
Need ideas for coping with low achievers		10.8	
Add (include) in TR Manual		5.4	
Add (include) in either TR Manual or C. Guide		24.3	
Leave "as is"		16.2	
Ranges could be specified, provincially or locally		2.7	
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings		8.1	
Emphasize practical suggestions		5.4	
Add suggestions for enrichment or coping with various learning styles		8.1	
Enhance specificity re: sequencing and progressive coverage		2.7	
Provide tests from which teachers can select		2.7	

Chart 22 Individual Differences Support in Curriculum Guides and Companion Publications: Reading 10

Responses to Interview Questions		Percentage of Responses Curriculum Guide	AE* Monograph
Yes, individual differences are addressed		37.5	100.0
No, individual differences are not addressed		62.5	
Uses:			
Planning instruction generally		25.0	50.0
For planning differentiated instruction and teaching low achievers			50.0
Can't use (class size too large); can't individualize		25.0	
Too general (or obscure, or brief) to be recognizable		25.0	
Individualizing only mentioned generally, therefore lacks practicality and usefulness		25.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.3	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .58	3 = partly easy, partly difficult		N = 2
N = 3	4 = easy	66.7	
	5 = very easy	33.3	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 3.3	2 = useless		S.D. = 0
Standard deviation (S.D.) = .58	3 = parts are useful	66.7	N = 2
N = 3	4 = useful	33.3	
	5 = very useful		100.0
Recommended changes			
Leave "as is"		33.3	66.6
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings			33.2
Suggest how to cope with large classes and heavy loads		11.1	
Add (include) this feature in C. Guide		11.1	
Add (include) in TR Manual		11.1	
Add (include in either TR Manual or C. Guide		11.1	
Emphasize practical suggestions		11.1	
Prepare and distribute mastery learning packages		11.1	

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Chart 23 Individual Differences Support in Curriculum Guides and Companion Publications: 1-6 Math

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses Publisher's/District's TR Guide
Yes, individual differences are addressed		18.5	25.0
No, individual differences are not addressed		81.5	75.0
Uses:			
Planning instruction generally		40.0	33.3
Individualizing is only mentioned generally, therefore lacks practicality and usefulness		20.0	33.3
For planning differentiated instruction and teaching low achievers		20.0	33.3
I don't use for this purpose		20.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.7	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .58	3 = partly easy, partly difficult		N = 1
N = 3	4 = easy	33.3	100.0
	5 = very easy	66.7	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.3	2 = useless		S.D. = 0
Standard deviation (S.D.) = 5.8	3 = parts are useful	66.7	N = 1
N = 3	4 = useful	33.3	100.0
	5 = very useful		
Recommended changes			
I need ideas for coping with low achievers		10.5	28.6
Add (include) in a TR Manual		15.8	28.6
Emphasize practical suggestions		2.6	14.3
Add suggestions for enrichment		10.5	28.6
Need a central multi-subject manual re: individual differences		7.9	
Add (include) this topic in C. Guide		10.5	
Add (include) in either C. Guide or TR Manual		23.7	
Need a proficiency levels document		2.6	
Leave "as is"		7.9	
Ranges of expectations could be specified provincially or locally		2.6	
Identify varying performance levels e.g., bright/dull. High-interest low-vocabulary		2.6	
Prepare and distribute mastery learning packages		2.6	

Chart 24 **Individual Differences Support in Curriculum Guides and Companion Publications: 7-9 Math**

Responses to Interview Questions		Percentage of Responses		
		Curriculum Guide	Problem Solving Monograph	Publisher's/District's TR Guide
Yes, individual differences are addressed		44.0	33.3	60.0
No, individual differences are not addressed		56.0	66.7	40.0
Uses:				
I use Publisher"s Guide and Monograph			33.3	
Planning instruction generally				50.0
For planning differentiated instruction and how to teach low achievers			33.3	50.0
Selecting strategies for I.O.P. pupils			33.3	
Planning instruction generally		31.3		
I use Teachers Resource Guide instead		24.1		
Assists in identifying developmental stages		6.3		
I use the philosophy and rationale		6.3		
Too general and obscure and brief to be useful		6.3		
Individualizing only mentioned generally therefore lacks utility		6.3		
For planning differentiated instruction and teaching low achievers		18.8		
How understandable?				
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.5	$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = .71	S.D. = 0
Standard deviation (S.D.) = .53	3 = partly easy, partly difficult		N = 2	N = 3
N = 7	4 = easy	42.9	50.0	100.0
	5 = very easy	57.1	50.0	
How useful?				
On 5-point scale:	1 = very useless	12.5	$\bar{x}$ = 3.0	$\bar{x}$ = 3.7
Mean (average, $\bar{x}$) = 3.3	2 = useless	12.5	S.D. = 0	S.D. = .58
Standard deviation (S.D.) = 1.4	3 = parts are useful	37.5	100.0 N = 2	N = 3
N = 8	4 = useful	12.5		33.3
	5 = very useful	25.0		66.7
Recommended changes				
Add (include) in TR Guide			33.3	20.0
Leave "as is"			33.3	40.0
Identify varying performance levels e.g., for bright and slow			33.3	
Indicate other agencies (e.g., AADAC) as reference source				20.0
Emphasize practical suggestions		6.1		20.0
Suggest how to cope with large classes and heavy loads		6.1		
Need a central multi-subject manual on indiv. differences		9.1		
Need ideas for coping with low achievers		6.1		
Add (include) this feature in C. Guide		6.1		
Add (include) this feature in TR Guide		15.2		
Add (include in either TR Manual or C. Guide)		3.0		
Leave "as is"		30.3		
Identify varying performance levels e.g., bright/low and high-interest low vocabulary		3.0		
Complement with inservice		3.0		
Add suggestions for enrichment		9.1		
Provide tests from which teachers can select		3.0		

Chart 25 **Individual Differences Support in Curriculum Guides and Companion Publications: 10-12 Math**

Responses to Interview Questions		Percentage of Responses Curriculum Guide	
Yes, individual differences are addressed		11.8	
No, individual differences are not addressed		88.2	
Uses:			
Planning instruction generally		14.3	
Differences among groups (not individuals) are addressed (via levels)		28.6	
Too general, vague and brief to be useful		14.3	
Individualizing only mentioned generally, therefore lacks usefulness		14.3	
For planning		14.3	
I use another publication for this purpose		14.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 5.0	2 = difficult		S.D. =
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult		N =
N = 2	4 = easy		
	5 = very easy	100.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.0	2 = useless		S.D. =
Standard deviation (S.D.) = 1.4	3 = parts are useful	50.0	N =
N = 2	4 = useful		
	5 = very useful	50.0	
Recommended changes			
Need a central multi-subject manual re: individual differences		8.3	
Need ideas for coping with low achievers		16.7	
Add (include) this feature in C. Guide		20.8	
Add (include) this feature in a resource manual		12.5	
Add (include) either in C. Guide or TR Manual		12.5	
Leave "as is"		20.8	
Add suggestions for enrichment or coping with various learning styles		8.3	

Chart 26 Individual Differences Support in Curriculum Guides and Companion Publications: 7-9 Science

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Publisher's/District's TR Guide
Yes, individual differences are addressed		11.8	
No, individual differences are not addressed		88.2	100.0
Uses:			
I use TR Manual or Monograph instead		100.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 5.0	2 = difficult		S.D. =
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult		N =
N = 1	4 = easy		
	5 = very easy	100.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 5.0	2 = useless		S.D. =
Standard deviation (S.D.) = 0	3 = parts are useful		N =
N = 1	4 = useful		
	5 = very useful	100.0	
Recommended changes			
Need ideas for coping with low achievers		11.5	25.0
Add (include) in TR Manual		19.2	50.0
Add suggestions for enrichment or coping with various learning styles		15.4	25.0
Suggest how to cope with large classes and heavy loads		3.8	
Need a central-multi-subject manual re: accommodating individual differences		15.4	
Add (include) this feature in C. Guide		7.7	
Add (include) in either TR Manual or C. Guide		15.4	
Leave "as is"		3.8	
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings		3.8	

Chart 27 Individual Differences Support in Curriculum Guides and Companion Publications: 10-30 French

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource
Yes, individual differences are addressed		7.1	50.0
No, individual differences are not addressed		92.9	50.0
Uses:			
Planning instruction generally		50.0	50.0
For planning differentiated instruction and teaching low achievers			50.0
Need videotapes about effective teaching practices		50.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 5.0	2 = difficult		S.D. = 0
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult		N = 1 100.0
N = 1	4 = easy		
	5 = very easy	100.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 5.0	2 = useless		S.D. = 0
Standard deviation (S.D.) = 0	3 = parts are useful		100.0 N = 1
N = 1	4 = useful		
	5 = very useful	100.0	
Recommended changes			
Suggest how to cope with large classes and heavy loads			100.0
Need a central multi-subject manual re: accommodating individual differences		6.3	
Add (include) this feature in C. Guide		12.5	
Add (include) in TR Manual		25.0	
Add (include) in either TR Manual or C. Guide		12.5	
Need a proficiency levels document		6.3	
Leave "as is"		25.0	
Complement with inservice		12.5	

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Chart 28 Individual Differences Support in Curriculum Guides and Companion Publications: 1-6 Drama

Responses to Interview Questions		Percentage of Responses	
		Curriculum Guide	AE* Teacher Resource
Yes, individual differences are addressed		50.0	25.0
No, individual differences are not addressed		50.0	75.0
Uses:			
Planning instruction generally		33.3	100.0
Differences among groups (not individuals) are addressed		33.3	
Assists in identifying development stages		33.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.7	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .58	3 = partly easy, partly difficult		N = 1
N = 3	4 = easy	33.3	100.0
	5 = very easy	65.7	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.7	2 = useless		S.D. = 0
Standard deviation (S.D.) = .58	3 = parts are useful	33.3	N = 1
N = 3	4 = useful	65.7	100.0
	5 = very useful		
Recommended changes			
Need ideas for coping with low achievers			25.0
Add (include in) Teacher Resource Guide			50.0
Add suggestions for enrichment			25.0
Add (include) this feature in C. Guide		25.0	
Add (include) in either TR Manual or C. Guide		25.0	
Leave "as is"		50.0	

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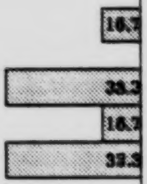
Chart 29 Individual Differences Support in Curriculum Guides and Companion Publications: Art 10-30

Responses to Interview Questions	Percentage of Responses Curriculum Guide	Percentage of Responses AE* Teacher Resource
Yes, individual differences are addressed	46.2	
No, individual differences are not addressed	53.8	100.0
Uses:		
Planning instruction generally	33.3	
Too general (or obscure, or brief) to be recognizable	16.7	
Individualizing only mentioned generally, therefore lacks practicality and usefulness	16.7	
For planning differentiated instruction and teaching low achievers	33.3	

How understandable?

On 5-point scale:
Mean (average, $\bar{x}$) = 3.7
Standard deviation (S.D.) = 1.2
N = 6

1 = very difficult
2 = difficult
3 = partly easy, partly difficult
4 = easy
5 = very easy

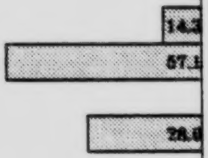


AE* Teacher Resource:
$\bar{x}$ =
S.D. =
N =

How useful?

On 5-point scale:
Mean (average, $\bar{x}$) = 3.4
Standard deviation (S.D.) = 1.1
N = 7

1 = very useless
2 = useless
3 = parts are useful
4 = useful
5 = very useful



AE* Teacher Resource:
$\bar{x}$ =
S.D. =
N =

Recommended changes	Curriculum Guide	AE* Teacher Resource
Re-insert Supplementary Activities used during piloting are invaluable		50.0
Identify varying performance levels e.g., for bright and below average e.g., high interest/low vocabulary readings	8.3	50.0
Add (include) this feature in C. Guide	16.7	
Add (include) in TR Manual	8.3	
Add (include) in either TR Manual or C. Guide	16.7	
Leave "as is"	50.0	

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*Alberta Environment

CURRICULUM PUBLICATIONS SUPPORT FOR ACCOMMODATING INDIVIDUAL DIFFERENCES: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

This portion of the interviews conducted at schools asked educators to comment and rate information in curriculum support publications which dealt with individual differences among pupils. If an interviewee felt that this topic was included then uses were listed and meaningfulness and usefulness ratings assigned. Finally, all respondents were asked to recommend changes (including additions/deletions) relative to this topic. The overall findings outlined below refer to the fourteen programs which provided the focus for the survey.

Individual differences and how to cope with them were thought to be addressed in some fashion by 26.7 percent of the respondents in the curriculum guide being critiqued. Those ranked highest on this feature were Art 10-30, 1-6 drama, Reading 10 and 7-9 Math publications where 37.5% to 50 percent of the educators responded affirmatively. Among the core subjects all of the English and Language Arts were rated lowest on the usefulness scale i.e., at "3" or lower ("useful in part"). No curriculum guides were rated above a "4" (useful) where more than a single rater was involved.

Individual difference was considered a component in companion publications by highly variable proportions of respondents, depending on the program and the document. All subjects except Art 10-30 had supporters who thought this feature was included in support documents; ranges extended from 20.0 percent (1-6 Health) through 25.0 percent (for 1-6 Drama, 1-6 Math, 7-9 Health and CALM 20. Up to 80 percent felt it was not addressed. Many teachers in Health and CALM 20 noted that the nature of the course allowed them to accommodate relatively easily to the variability in the students enrolled.

Preferred locations for information on individual differences were equally divided between teacher resource manuals and "either teacher resource manuals or curriculum guides". Some support is voiced for not including this in a curriculum guide.

Satisfaction levels relative to information about individual differences in existing publications were inferred from the "leave as is" comments. The highest satisfaction ratings were recorded for 1-6 Drama, Art 10-30, 1-6 Health, 7-9 Health and Personal Life

Skills, CALM 20 and 7-9 Math. All but Math were courses where teachers reported relative ease in accommodating to individual differences. When asked to name any curriculum support document they would rate highly on this feature only Secondary Physical Education publications were mentioned by more than four educators.

Comments about uses for curriculum support publications relative to individual differences were recorded for both curriculum guides and supplementary publications. Comments made by three percent or more of the school-based interviewees are listed in Table 20. A significant minority communicated disparagingly about the help provided in this area: 17.4 percent and 12.8 percent (a total of 30.2%) noted that the topic was dealt with only in a general, brief fashion and therefore lacked utility. This may describe the general situation since, as noted in the main report, when asked to name curriculum publications they would rate highly on this feature Secondary Physical Education was the only program area mentioned by more than one percent of the group; over forty percent chose not to name any and fifty percent replied "none".

Table 20 Individual Differences Information Found Useful in Curriculum Publications

Interview Statements Re: Use of Individual Difference Information	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Planning instruction generally	33.7	44.1
I use the resource manual (monograph) instead	11.0	3.4
Differences among groups (not individuals) are addressed via levels	4.7	1.7
Publication assists in identifying development levels	9.3	8.5
I use the philosophy and rationale	8.1	6.8
Too general, or brief, or obscure to be recognizable	17.4	1.7
I need videotapes and information about effective teaching practices	5.8	-
It is only mentioned generally -- therefore lacks practicality and usefulness	12.8	8.5
Useful for planning differentiated instruction and meeting the needs of low achievers	17.4	54.2
Not appropriate or not needed for this course	4.7	13.6
I don't use	4.7	-

Recommended changes in support of coping with individual differences were recommended by those interviewed at the schools. Table 21 reports the recommendations contributed by more than three percent of this group. A large minority group, 30.1 percent and 40.0 percent of those commenting about curriculum guides and supplementary documents respectively, opined that information of this nature should be left "as is" i.e., either the need did not warrant changes or existing provisions were sufficient. However, over fifty percent implied that more aid of this type was needed. This suggests that a central, multi-subject manual on individual differences might be an attractive support alternative since it would be distributed only to those who would use it. Enrichment activities and references could routinely be suggested in existing documents as well as resources and experience for the low achiever (as per the suggestions for I.O.P. students contained in the CALM 20 manuals).

Table 21 Individual Differences Support: Recommended Changes in Curriculum Publications

Interviewees' Recommendations Re: Changes/Additions/Deletions	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Suggest how to cope with large classes and heavy loads	4.2	-
Need central multi-subject generic publication	11.2	3.6
Need ideas for coping with low achievers	9.7	10.6
Add/include this feature in C. Guide	10.8	-
Add/include in TR Manual	22.0	18.8
Add/include in either TR Manual or C. Guide	21.6	-
Leave "as is"	30.1	40.0
Need a proficiency levels document	3.1	-
Re-insert the supplementary activities used during piloting (are invaluable)	-	3.5
Need a clearer description of the levels (e.g., readability indices) of resource materials	-	3.5
Insert about the use of student contracts to help differentiate and provide alternatives	-	2.4
Indicate other agencies (e.g., AADAC) as reference sources	-	4.7
Provide additional suggestions for resource room pupils (as CALM manuals do for I.O.P.)	-	5.9
Identify expected and varying performance levels (e.g., bright and slow) and suggest resources (e.g., high-interest low-vocab.)	3.5	10.6
Emphasize practical suggestions	5.0	8.2
Add suggestions for enrichment and coping with varying learning styles	10.8	14.1

Generalization from the research indicate that concerns about meeting the needs of individual students and accommodating their diverse interests and capabilities are generally manifested during middle and later stages of the implementation of new curricula. The findings from the current survey are consistent with these generalizations (Hall et al., 1985; Hall and Loucks, 1976, 1978; Hall and others, 1977; Loucks and others, 1975; Miller and Seller, 1985, pp. 249-264; Leithwood and Montgomery, 1980; Harvey Research, 1980, pp. 30-34).

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the data obtained from the interviews, generalizations from the research, and the experience of the study team it is concluded:

C 6.1 That additional information about how to cope with problems associated with the heterogeneous nature of classes of students is needed and would be used by a significant proportion of teachers; and

C 6.2 That support and ideas needed for coping with individual differences includes additions to those recorded during the interviews.

It is recommended:

R 6.1 That enrichment/extension activities, resources and references be included throughout in some curriculum implementation support publication identified with each school program;

R 6.2 That activities, resources and references appropriate for use with those in need of remediation be included throughout in some curriculum implementation support publication identified with each school program;

R 6.3 That a central multi-subject monograph on coping with individual differences be prepared and distributed on a request (sale) basis and that topics such as the following be considered for inclusion: lesson and unit planning for individualizing and differentiating instruction, identifying and accommodating learning style preference, teaching diverse thinking skills, tailoring tests to match individuals' proficiency levels, etc.

EVALUATING PUPIL PROGRESS

Another specific component which might potentially be included in curriculum implementation support publications and services is evaluation of student achievement. The survey information about needs uncovered during implementation of new or revised curricula revealed that evaluation of pupil progress dominated. Conclusion 3.4 in this report stated "That among needs not mentioned as apparent when new or revised programs were first announced, evaluation of student achievement ranks highest by far in frequency of mention and as a challenge for teachers" As noted previously, evaluating student performance along with attending to student differences and accessing appropriate pupil learning resources are components in a cluster of concerns which generally manifest themselves at middle and later stages of the curriculum implementation sequence. Accordingly, the needs related to the challenges associated with evaluating student achievement are consistent with the findings from relevant research (Harvey Research, 1988, pp. 30-34).

EVALUATING PUPIL PROGRESS AS A COMPONENT IN CURRICULUM GUIDES

The interviewees in the schools were asked if the particular curriculum guide being discussed provided any assistance in evaluating pupil progress. Overall, 54.4 percent replied "Yes" (Table 22). A very large proportion of this group indicated that the statements of objectives and the listing of content facilitated a review of coverage useful as a basis for planning evaluations. One-third of the total respondent group, in listing uses for curriculum guides, communicated ". . . basis for evaluating i.e., checklist of coverage/content/objectives". The overall rationale and philosophy is also reported used (9.2%) (Table 25). Once again, the **Program of Studies** component in curriculum guides is confirmed as useful. When other information and support for evaluating is provided the respondents acknowledged this i.e., "Sample tools are used verbatim for evaluation" (15.7%) and "I use the marking/evaluation procedures described" (11.9%). A significant minority, however, claimed that the information about evaluating was "Not used and lacks practicality. Is very general" (18.4%). (See Table 25).

Table 22 indicates that the support in curriculum guide for evaluating is highly variable. Many more perceive that it is provided in 10-12 English, Reading 10 and 7-9 Language Arts than in 1-6 Language Arts, for example. Usefulness ratings vary as well. However, judgments about the adequacy of the support need to be suspended until the information in companion publications is considered (Table 23).

Table 22 Curriculum Guides Containing Suggestions for Evaluating Pupil Progress

Program	Percentage "Yes" Responses	Usefulness Rating*	
		Mean	(N)
ECS Philosophy, Goals . . .	50.0	2.5	(2)
1-6 Health	29.4	3.5	(4)
1-6 Language Arts	58.8	2.5	(19)
1-6 Math	48.0	3.4	(13)
1-6 Drama	83.3	3.2	(4)
7-9 Language Arts	83.9	4.0	(24)
7-9 Math	40.0	2.9	(9)
7-9 Science	5.6	3.0	(1)
7-9 Health and PL Skills	36.8	3.7	(6)
Reading 10	100.0	3.6	(7)
CALM 20	46.7	3.8	(8)
10-12 Math	23.5	4.0	(4)
10-12 English	85.0	3.7	(16)
Art 10-30	71.4	3.8	(10)
French 10-30	71.4	3.6	(7)
Totals (weighted averages)	54.4	3.5	(134)

*Note: usefulness ratings were based on the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

EVALUATING PUPIL PROGRESS AS A COMPONENT IN COMPANION PUBLICATIONS

Publishers' resource guides were included in the "Companion Publication" category along with assorted monographs, resource manuals and hand-books provided by Alberta Education. Over one-hundred of the school respondents (three-fourths of those responding about companion documents) replied "Yes" as to whether the topic of evaluation was addressed. Table 23 indicates that 1-6 Health is still thought by many to be very deficient since the Resource Manual is mentioned by few (10.0% of that group) and receives a low average rating of 2.0 ("useless"). However, 7-9 Math, which received a low rating for the curriculum guide is rated high overall when the support provided by the publishers' guides is considered. For both 7-9 Math and 10-12 Math the problem-solving monograph was rated at "5" (very useful) partly due to the varied illustrations of problems and the information about scoring problem solving processes. The usefulness rating for the Alberta Education 7-9 Health and Personal Life Skills Resource Manual is relatively high in contrast to its elementary counterpart, although only one-third of those responding thought it contained significant support about evaluation.

Table 23 Companion Publications Containing Information Re: Evaluating Pupil Progress

Program	Alberta Education % Yes (Usefulness*)		Publisher's % Yes (usefulness*)
	Monograph, Handbook	Resource Manual	Resource Guide or Manual or Supplement
1-6 Health		10.0 (2.0)	
1-6 Language			80.0 (3.3)
1-6 Drama		66.7 (4.0)	
1-6 Math			75.0 (3.7)
7-9 Language			75.0 (3.0)
7-9 Math	50.0 (5.0)		100.0 (4.8)
7-9 Health		33.3 (4.7)	
Reading 10	100.0 (5.0)		
10-12 Math	50.0 (5.0)		
Art 10-30			
French 10-30			
7-9 Science			66.7 (4.5)
CALM 20		100.0 (4.3)	
10-12 English			

*Note: usefulness ratings are recorded within parentheses, are sometimes based on small numbers and applied the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

PREFERRED LOCATIONS FOR EVALUATION INFORMATION

Those interviewed at the school were asked at the end of the section about evaluating pupil progress to recommend changes, including additions or deletions, concerning information about this topic. Table 24 portrays the percentages of total recommendations which expressed preferences about the type of publication in which information about evaluating student achievement should be placed. It is noteworthy that, since a relatively large number of recommendations were communicated about supports for evaluating (399), the percentages pertaining to locating this information are relatively low. The percentages of total respondents (available only for aggregated totals) would be more useful.

As for teaching strategies and individual difference information opinion is divided about where to place the information about evaluation. Upcoming sections (Table 26) indicate heavy demands for a proficiency levels document (20.4%), test item banks (15.3%), illustrative test exercises and items (22.6%), and illustrations about how to evaluate process skills (10.6%). These might well be provided in locations other than curriculum guides or resource manuals.

Table 24 Locations and Changes to Information about Evaluating Pupil Progress: Percentages of Total Recommendations

Program	Add to and/or Retain in:				Leave "as is"			
	Teacher Resource Manual*	Curric. Guide	either TRM* or C. Guide	Total %	Teacher Resource Manual*	Curric. Guide	Not required	Total %
1-6 Health	5.9	5.9	5.9	17.7			23.5	23.5
7-9 Health	15.8	5.3	15.8	36.9			21.1	21.1
CALM 20	21.4	-	28.6	50.0			14.3	14.3
1-6 Language Arts	5.9	13.7	5.9	25.5			2.0	2.0
7-9 Language Arts	2.1	14.6	2.1	18.8			16.7	16.7
10-12 English	-	14.3	3.6	17.9			14.3	14.3
Reading 10	8.3	8.3	8.3	24.9			100.0	100.0
1-6 Math	3.1	12.5	0.0	15.8			6.3	6.3
7-9 Math	2.7	5.4	5.4	13.5			2.7	2.7
10-12 Math	8.7	4.3	17.4	30.4			13.0	13.0
7-9 Science	-	2.6	13.2	15.8			7.9	7.9
French 10-30	-	19.0	9.5	28.5			4.8	4.8
1-6 Drama	-	-	-	-			28.6	28.6
Art 10-30	-	25.0	10.0	35.0			-	-
% of Total Recommendations	4.0	10.1	8.0	22.1			11.3	11.3
% of Total Respondents	6.8	17.0	13.6	37.4			19.1	19.1

*Note: Teacher Resource Manual (TRM) refers to either an Alberta Education document (or monograph) existing or needed, or a publisher's manual.

The general indicator of satisfaction with the status quo was the "leave as is" recommendations. Relative to evaluation, Table 24 indicates that only 19.1 percent of **respondents** felt that no changes or additions were required. This proportion is much lower than the ones recorded earlier with respect to information about teaching strategies (31.4%) and individual differences (30.1%). Accordingly, this supports the conclusion that evaluation information is considered, in relative terms, to be least satisfactory. All of the core academic subjects are rated very low, commencing with 1-6 Language Arts where 2.0 percent suggest leaving matters "as is". Reading 10 (100%) and 1-6 Drama (28.6%) were assigned the highest satisfaction ratings.

Other publications rated highly on the information about evaluation included were mentioned by very few respondents. Over one-half responded "None"; reporting they were unaware of any publication meriting accolades. More than one-third did not respond to this request, indicating they were unaware of candidates or unwilling to assign a ranking. The one mentioned by ten or more was the monograph on evaluation for secondary physical education. The junior high language arts curriculum guide was mentioned by more than five presumably on the basis of the appended descriptions of marking schemes. Other publications received few mentions: e.g., junior high health resource manual, and the elementary math materials.

SUPPORT ABOUT EVALUATION: DETAILED COMMENTS AND RATINGS BY PROGRAM

For readers with responsibilities for, and interests in, providing information on evaluating in publications for **specific** programs Charts 30-43 which follow will be useful. For others, the Summary section will provide the aggregated totals and overview information. Once again the reader is reminded that the numbers of raters for some publications are very low and conclusions need to be tempered in these instances.

Chart 30 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 1-6 Health

Responses to Interview Questions		Percentage of Responses Curriculum Guide	AE* Teacher Resource (Manual)	
Yes, evaluating pupil progress is addressed		29.4	10.0	
No, evaluating pupil progress is not addressed		70.6	90.0	
Uses:				
Sample tools are used verbatim for evaluation		11.1	100.0	
Basis for evaluating i.e., checklist of coverage/content/objectives		44.4		
Not used. After initial perusal I have not read		11.1		
I use the marking/evaluating procedures described		11.1		
I don't use much		22.2		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.3	2 = difficult	25.0		S.D. = 0
Standard deviation (S.D.) = 1.5	3 = partly easy, partly difficult			N = 1
N = 4	4 = easy			
	5 = very easy	75.0	100.0	
How useful?				
On 5-point scale:	1 = very useless	25.0		$\bar{x}$ = 2.0
Mean (average, $\bar{x}$) = 3.5	2 = useless		100.0	S.D. = 0
Standard deviation (S.D.) = 1.9	3 = parts are useful	25.0		N = 1
N = 4	4 = useful			
	5 = very useful	50.0		
Recommended changes				
Test exercises, questions, checklists, model tests		35.3	17.6	
Add (include) this feature in TR Manual		5.9	11.8	
Add (include) in either C. Guide or TR Manual		5.9	5.9	
Leave "as is"		23.5	17.6	
Test exercises, questions, checklists, model tests			11.8	
Checklists for use with each student			17.6	
Add how to apply various evaluation models			11.8	
I don't need personally (Leave "as is")			5.9	
Add (include) this feature in C. Guide		5.9		
Central multi-subject publication re: general evaluation		11.8		
Need a proficiency levels document with skills clarified and work products displayed		11.8		
Stress teacher-student rapport, real trust, self-evaluation		5.3		

*Alberta Education

Chart 31 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 7-9 Health

		Percentage of Responses	
Responses to Interview Questions		**Curriculum Guide**	**AE* Teacher Resource** (Manual)
Yes, evaluating pupil progress is addressed		36.8	33.3
No, evaluating pupil progress is not addressed		63.2	66.7
Uses:			
Sample tools are used verbatim for evaluation			42.9
I use the marking/evaluating procedures described		10.0	28.6
Used to obtain evaluation weightings		10.0	14.3
I use the guidelines in the various publications			14.3
Basis for evaluating i.e., checklist of coverage/content/objectives		20.0	
Not used. After initial perusal I have not read		10.0	
Not needed; not used for evaluating		20.0	
Not used/lacks practicality. Very general		10.0	
I use publisher's or district's material and ideas		10.0	
I don't use since evaluation of students in this course is detrimental (use pass/fail only)		10.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.7
Mean (average, $\bar{x}$) = 4.3	2 = difficult		S.D. = .58
Standard deviation (S.D.) = .82	3 = partly easy, partly difficult	16.7	N = 3
N = 6	4 = easy	33.3	33.3
	5 = very easy	50.0	66.7
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.7
Mean (average, $\bar{x}$) = 3.7	2 = useless	33.3	S.D. = 5.8
Standard deviation (S.D.) = 1.4	3 = parts are useful		N = 3
N = 6	4 = useful	33.3	33.3
	5 = very useful	33.3	66.7
Recommended changes			
Test exercises, questions, checklists, model tests		5.3	7.7
Add (include) this feature in TR Manual			30.8
Leave "as is"		21.1	30.8
Illustrate how to evaluate processes and applications e.g., problem solving		10.5	7.7
Checklists for use with each student			7.7
Need guides and examples about evaluation			7.7
I don't need personally (Leave "as is")			7.7
Test item banks		5.3	
Weights assigned to units when evaluating		5.3	
Add (include) this feature in C. Guide		5.3	
Add (include) this feature in TR Manual		15.8	
Add (include) in either C. Guide or TR Manual		15.8	
Need a proficiency levels document with skills clarified and work products displayed		5.3	
Provide examples of higher cognitive level questions (application and higher)		5.3	

*Alberta Education

Chart 32 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: CALM 20

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource (Manual)	
Yes, evaluating pupil progress is addressed		46.7	100.0	
No, evaluating pupil is not addressed		53.3		
Uses:				
Basis for evaluating i.e., checklist of coverage/content/objectives		60.0	18.2	
Not used. After initial perusal I have not read			27.3	
Sample tools are used verbatim for evaluation			36.4	
I use the marking/evaluating procedures described		10.0	18.2	
Not used/lacks practicality. Very general		10.0		
Used to obtain evaluation weightings		10.0		
I use the guidelines in the various publications		10.0		
How understandable?				
On 5-point scale:	1 = very difficult			x̄ = 4.4
Mean (average, x̄) = 4.3	2 = difficult			S.D. = .92
Standard deviation (S.D.) = .89	3 = partly easy, partly difficult	25.0	25.0	N = 8
N = 8	4 = easy	25.0	12.5	
	5 = very easy	50.0	62.5	
How useful?				
On 5-point scale:	1 = very useless			x̄ = 4.3
Mean (average, x̄) = 3.8	2 = useless			S.D. = .89
Standard deviation (S.D.) = 1.0	3 = parts are useful	62.5	25.0	N = 8
N = 8	4 = useful		25.0	
	5 = very useful	37.5	50.0	
Recommended changes				
Test item banks			17.6	
Test exercises, questions, checklists, model tests		7.1	17.6	
Add (include) this feature in TR Manual		21.4	5.9	
Leave "as is"		14.3	17.6	
Illustrate how to evaluate processes and applications e.g., problem solving			5.9	
Evaluation of affective domain accomplishments		7.1	23.3	
Add how to apply various evaluation models		28.6	11.8	
Add (include) in either C. Guide or TR Manual				
Emphasize group (program) evaluation		7.1		
Checklists for use with each student		7.1		
Provide examples of higher cognitive level questions (application and higher)		7.1		

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Chart 33 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 1-6 Language Arts

Responses to Interview Questions		Curriculum Guide	Publisher's/District's TR Guide	
		Percentage of Responses		
Yes, evaluating pupil progress is addressed		58.8	80.0	
No, evaluating pupil progress is not addressed		41.2	20.0	
Uses:				
I use publisher's or district's material and ideas			14.3	
Sample tools are used verbatim for evaluation		3.6	28.6	
I use the marking/evaluating procedures described			28.6	
I don't use much		3.6	14.3	
Specific examples are useful			14.3	
Basis for evaluating i.e., checklist of coverage/content/objectives		17.9		
Not used. After initial perusal I have not read		10.7		
Overall rationale and philosophy as basis for evaluation		17.9		
Not used/lacks practicality. Very general		42.9		
Don't recall using for this purpose		3.6		
How understandable?				
On 5-point scale:	1 = very difficult	5.3		$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 3.4	2 = difficult	10.5		S.D. = .58
Standard deviation (S.D.) = 1.0	3 = partly easy, partly difficult	31.6		N = 4
N = 19	4 = easy	42.1	50.0	
	5 = very easy	10.5	50.0	
How useful?				
On 5-point scale:	1 = very useless	15.8		$\bar{x}$ = 3.3
Mean (average, $\bar{x}$) = 2.5	2 = useless	26.3		S.D. = .5
Standard deviation (S.D.) = .84	3 = parts are useful	52.6	75.0	N = 4
N = 19	4 = useful	5.3	25.0	
	5 = very useful			
Recommended changes				
Test item banks		7.8	16.7	
Test exercises, questions, checklists, model tests		13.7	33.3	
Add (include) this feature in TR Manual		5.9	16.7	
Illustrate how to evaluate processes and applications e.g., problem solving		9.8	16.7	
Local evaluation policy needs to be recognized			16.7	
Weights assigned to units when evaluating		3.9		
Add (include) this feature in C. Guide		13.7		
Add (include) in either C. Guide or TR Manual		5.9		
Central multi-subject publication re: general evaluation		3.9		
Leave "as is"		2.0		
Need a proficiency levels document with skills clarified and work products displayed		17.6		
Emphasize group (program) evaluation		2.0		
Provide examles of higher cognitive level questions (application and higher)		2.0		
Need help with "Wholistic" evaluation		5.9		
Include standardized, common marking schemes		5.9		

Chart 34 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 7-9 Language Arts

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses Publisher's/District's TR Guide
Yes, evaluating pupil progress is addressed		83.9	75.0
No, evaluating pupil progress is not addressed		16.1	25.0
Uses:			
Not used. After initial perusal I have not read		9.1	25.0
Not used/lacks practicality. Very general		4.5	25.0
Communicating/conferencing with students and/or parents		2.3	25.0
Sample tools are used verbatim for evaluation		29.5	25.0
Basis for evaluating i.e., checklist of coverage/content/objectives		13.6	
Overall rationale and philosophy as basis for evaluations		6.8	
Not needed; not used for evaluating		2.3	
Don't recall using for this purpose		2.3	
I use the marking/evaluating procedures described		25.0	
I don't use much		2.3	
I have had training in wholistic scoring		2.3	
How understandable?			
On 5-point scale:	1 = very difficult		x̄ = 4.0
Mean (average, x̄) = 4.8	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .61	3 = partly easy, partly difficult	8.3	N = 3
N = 24	4 = easy	8.3	
	5 = very easy	83.3	100.0
How useful?			
On 5-point scale:	1 = very useless		x̄ = 3.0
Mean (average, x̄) = 4.0	2 = useless	12.5	33.3 S.D. = 1.0
Standard deviation (S.D.) = 1.1	3 = parts are useful	25.0	33.3 N = 3
N = 24	4 = useful	12.5	33.3
	5 = very useful	50.0	
Recommended changes			
Add (include) this feature in TR Manual		2.1	20.0
Illustrate how to evaluate processes and applications e.g., problem solving		4.2	20.0
Checklists for use with each student		4.2	20.0
Evaluation of affective domain accomplishments		6.3	20.0
Provide summary pages of highlights and essentials			20.0
Test item banks		4.2	
Test exercises, questions, checklists, model tests		10.4	
Weights assigned to units when evaluating		2.1	
Add (include) this feature in C. Guide		14.6	
Add (include) in either C. Guide or TR Manual		2.1	
Central multi-subject publication re: general evaluation		4.2	
Leave "as is"		16.7	
Need a proficiency levels document with skills clarified and work products displayed		14.6	
Provide examples of higher cognitive level questions (application and higher)		6.3	
Need help with "wholistic" evaluation		2.1	
Stress teacher-student rapport, real trust, self evaluation		4.2	
Include standardized, common marking schemes		2.1	

Chart 35 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 10-12 English

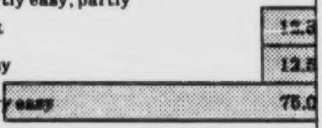
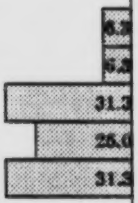
Responses to Interview Questions		Percentage of Responses Curriculum Guide	
Yes, evaluating pupil progress is addressed		85.0	
No, evaluating pupil progress is not addressed		15.0	
Uses:			
Basis for evaluating i.e., checklist of coverage/content/objectives		9.8	
Not used. After initial perusal I have not read		11.5	
Overall rationale and philosophy as basis for evaluation		3.8	
Not needed; not used for evaluating		3.8	
Not used/lacks practicality. Very general		3.8	
Sample tools are used verbatim for evaluation		30.8	
I use the marking/evaluating procedures described		15.4	
Used to obtain evaluation weightings		3.8	
I use the guidelines in the various publications		3.8	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. =
Standard deviation (S.D.) = .72	3 = partly easy, partly difficult		N =
N = 16	4 = easy		
	5 = very easy		
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.7	2 = useless		S.D. =
Standard deviation (S.D.) = 1.2	3 = parts are useful		N =
N = 16	4 = useful		
	5 = very useful		
Recommended changes			
Test item banks		3.6	
Test exercises, questions, checklists, model tests		14.3	
Add (include this feature in C. Guide		14.3	
Add (include) in either C. Guide or TR Manual		3.6	
Leave "as is"		14.3	
Need a proficiency levels document with skills clarified and work products displayed		14.3	
Alert teachers better about areas to be tested in provincial exams		3.6	
Illustrate how to evaluate processes and applications e.g., problem solving		3.6	
Emphasize group (program) evaluation		3.6	
Checklists for use with each student		7.1	
Need help with "Wholistic" evaluation		3.6	
Stress teacher-student rapport, real trust, self evaluation		7.1	
Include standardized, common marking schemes		7.1	

Chart 36 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: Reading 10

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Monograph
Yes, evaluating pupil progress addressed		100.0	100.0
No, evaluating pupil progress not addressed			
Uses:			
Overall rationale and philosophy as basis for evaluations			33.3
Sample tools are used verbatim for evaluation		11.1	33.3
I use the marking/evaluating procedures described			33.3
Basis for evaluating i.e., checklist of coverage/content/objectives		33.3	
Not used/lacks practicality. Very general.		22.2	
Specific examples are useful		11.1	
Communicating with students		11.1	
I use the guidelines in the various publications		11.1	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.4	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .53	3 = partly easy, partly difficult		N = 2
N = 7	4 = easy	57.1	
	5 = very easy	42.9	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 3.6	2 = useless	28.6	S.D. = 0
Standard deviation (S.D.) = 1.3	3 = parts are useful	14.3	N = 2
N = 7	4 = useful	28.6	
	5 = very useful	28.6	100.0
Recommended changes			
Add (include) this feature in TR Manual		8.3	25.0
Leave "as is"		8.3	25.0
Illustrate how to evaluate processes and applications e.g., problem solving			25.0
Need guides and examples about evaluation			25.0
Test item banks		16.7	
Add (include) this feature in C. Guide		8.3	
Add (include) in either C. Guide or TR Manual		8.3	
Need a proficiency levels document with skills clarified and work products displayed		25.0	
Alert teachers better about areas to be test in provincial exams		8.3	
Emphasize group (program) evaluation		8.3	
Include standardized, common marking schemes		8.3	

Chart 37 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 1-6 Math

Responses to Interview Questions		Percentage of Responses		
		Curriculum Guide	**Publisher's/District's TR Guide**	
Yes, evaluating pupil progress is addressed		48.0	75.0	
No, evaluating pupil progress is not addressed		52.0	25.0	
Uses:				
Not used/lacks practicality. Very general		40.0	16.7	
I use publisher's or district's material and ideas			16.7	
Sample tools are used verbatim for evaluation			33.3	
I use the marking/evaluating procedures described			33.3	
Basis for evaluating i.e., checklist of coverage/content objectives		53.3		
Used to obtain evaluation weightings		6.7		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.3
Mean (average, $\bar{x}$) = 4.3	2 = difficult			S.D. = .58
Standard deviation (S.D.) = .75	3 = partly easy, partly difficult	15.4		N = 3
N = 13	4 = easy	38.5	66.7	
	5 = very easy	46.2	33.3	
How useful?				
On 5-point scale:	1 = very useless	7.7		$\bar{x}$ = 3.7
Mean (average, $\bar{x}$) = 3.4	2 = useless	15.4		S.D. = 1.5
Standard deviation (S.D.) = 1.3	3 = parts are useful	38.5		N = 3
N = 13	4 = useful	7.7	33.3	
	5 = very useful	30.8	33.3	
Recommended changes				
Test item banks		12.5	12.5	
Test exercises, questions, checklist, model tests		15.6	25.0	
Add (include) this feature in TR Manual		3.1	25.0	
Illustrate how to evaluate processes and applications e.g., problem solving		6.3	12.5	
Add how to apply various evaluation models			12.5	
Use tests provided by the publisher			12.5	
Weights assigned to units when evaluating		6.3		
Add (include) this feature in C. Guide		12.5		
Central multi-subject publication re: general evaluation		6.3		
Leave "as is"		6.3		
Need a proficiency levels document with skills clarified and work products displayed		15.6		
Emphasize group (program) evaluation		3.1		
Checklists for use with each student		3.1		
Provide examples of higher cognitive level questions (application and higher)		3.1		
Evaluation of affective domain accomplishments		6.3		

Chart 38 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 7-9 Math

Responses to Interview Questions		Percentage of Responses		
		Curriculum Guide	Problem Solving Monograph	Publisher's/District's TR Guide
Yes, evaluating pupil progress is addressed		40.0	50.0	100.0
No, evaluating pupil progress is not addressed		60.0	50.0	
Uses:				
Overall rationale and philosophy as basis for evaluations			20.0	
Sample tools are used verbatim for evaluation			40.0	37.5
I use the marking/evaluating procedures described			40.0	25.0
Basis for evaluating i.e., checklist of coverage/content/objectives				12.5
Not needed; not used for evaluating		7.1		
I use publisher's or district's material and ideas		35.7		
Basis for evaluating i.e., checklist of coverage/content/objectives		21.4		
Not used. After initial perusal I have not read		7.1		
I don't use much		14.3		
Used to obtain evaluation weightings		7.1		
Mis-match between local expectations (jurisdictions) and provincial exam		7.1		
How understandable?				
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0	$\bar{x}$ = 4.8
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 0	S.D. = .5
Standard deviation (S.D.) = .53	3 = partly easy, partly difficult		N = 2	N = 4
N = 7	4 = easy	42.9		25.0
	5 = very easy	57.1	100.0	75.0
How useful?				
On 5-point scale:	1 = very useless	22.2	$\bar{x}$ = 5.0	$\bar{x}$ = 4.8
Mean (average, $\bar{x}$) = 2.9	2 = useless	22.2	S.D. = 0	S.D. = .5
Standard deviation (S.D.) = 1.5	3 = parts are useful	22.2	N = 2	N = 4
N = 9	4 = useful	11.1		25.0
	5 = very useful	22.2	100.0	75.0
Recommended changes				
Leave "as is"		2.7	66.7	14.3
Illustrate how to evaluate processes and applications e.g., problem solving		5.4	33.3	28.6
Test item banks		27.0		14.3
Test exercises, questions, checklists, model tests		18.9		14.3
Add (include) this feature in TR Manual		2.7		14.3
Add how to apply various evaluation models				14.3
Weights assigned to units when evaluating		5.4		
Add (include) this feature in C. Guide		5.4		
Add (include) in either C. Guide or TR Manual		5.4		
Central multi-subject publication re: general evaluation		2.7		
Need a proficiency levels document with skills clarified and work products displayed		5.4		
Emphasize group (program) evaluation		2.7		
Checklists for use with each student		2.7		
Provide examples of higher cognitive level questions (application and higher)		2.7		
Evaluation of affective domain accomplishments		2.7		
Include standardized, common marking schemes		2.7		

Chart 39 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 10-12 Math

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses
Yes, evaluating pupil progress is addressed		23.5	
No, evaluating pupil progress is not addressed		76.5	
Uses:			
Basis for evaluating i.e., checklist of coverage/content/objectives		28.6	
Overall rationale and philosophy as basis for evaluations		14.3	
I use publisher's or district's material and ideas		14.3	
Used to obtain evaluation weightings		42.9	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 5.0	2 = difficult		S.D. =
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult		N =
N = 4	4 = easy		
	5 = very easy	100.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.0	2 = useless		S.D. =
Standard deviation (S.D.) = 1.2	3 = parts are useful	50.0	N =
N = 4	4 = useful		
	5 = very useful	50.0	
Recommended changes			
Test item banks		30.4	
Test exercises, questions, checklists, model tests		8.7	
Add (include) this feature in C. Guide		4.3	
Add (include) this feature in TR Manual		8.7	
Add (include) in either C. Guide or TR Manual		17.4	
Leave "as is"		13.0	
Illustrate how to evaluate processes and applications e.g., problem solving		4.3	
Emphasize group (program) evaluation		4.3	
Provide examples of higher cognitive levels questions (application and higher)		8.7	

Chart 40 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 7-9 Science

		Percentage of Responses		
Responses to Interview Questions		**Curriculum Guide**	**Publisher's/District's TR Guide**	
Yes, evaluating pupil progress is addressed		5.6	66.7	
No, evaluating pupil progress is not addressed		94.4	33.3	
Uses:				
Basis for evaluating i.e., checklist of coverage/content/objectives		20.0	33.3	
Sample tools are used verbatim for evaluation			33.3	
I use the marking/evaluating procedures described			33.3	
Not used. After initial perusal I have not read		20.0		
Not needed; not used for evaluating		40.0		
Don't recall using for this purpose		20.0		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 4.0	2 = difficult			S.D. = .71
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult			N = 2
N = 1	4 = easy	100.0	50.0	
	5 = very easy		50.0	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 3.0	2 = useless			S.D. = .71
Standard deviation (S.D.) = 0	3 = parts are useful	100.0		N = 2
N = 1	4 = useful		50.0	
	5 = very useful		50.0	
Recommended changes				
Test item banks		13.2	60.0	
Evaluation of affective domain accomplishments		10.5	20.0	
Provide summary pages of highlights and essentials			20.0	
Test exercises, questions, checklists, model tests		15.8		
Weights assigned to units when evaluating		2.6		
Add (include) this feature in C. Guide		2.6		
Add (include) in either C. Guide or TR Manual		13.2		
Central multi-subject publication re: general evaluation		2.6		
Leave "as is"		7.9		
Need a proficiency levels document with skills clarified and work products displayed		7.9		
Alert teachers better about areas to be tested in provincial exams		2.6		
Illustrate how to evaluate processes and applications e.g., problem solving		5.3		
Emphasize group (program) evaluation		2.6		
Checklists for use with each student		2.6		
Provide examples of higher cognitive level questions (application and higher)		5.3		
Stress teacher-student rapport, real trust, self-evaluation		2.6		
Include standardized, common marking schemes		2.6		

Chart 41 **Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: French 10-30**

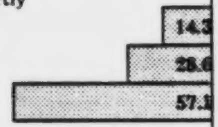
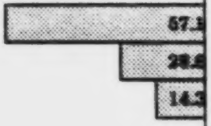
Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource
Yes, evaluating pupil progress is addressed		71.4	
No, evaluating pupil progress is not addressed		28.6	100.0
Uses:			
Basis for evaluating i.e., checklist of coverage/content/objectives		22.2	
Not used. After initial perusal I have not read		11.1	
Overall rationale and philosophy as basis for evaluations		5.6	
Not needed; not used for evaluating		5.6	
Not used/lacks practicality. Very general		11.1	
I use publisher's or district's material and ideas		5.6	
Sample tools are used verbatim for evaluation		16.7	
I use the marking/evaluating procedures described		16.7	
Used to obtain evaluation weightings		5.6	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.4	2 = difficult		S.D. =
Standard deviation (S.D.) = .79	3 = partly easy, partly difficult	 14.3	N =
N = 7	4 = easy	28.6	
	5 = very easy	57.1	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.6	2 = useless		S.D. =
Standard deviation (S.D.) = .79	3 = parts are useful	 57.1	N =
N = 7	4 = useful	28.6	
	5 = very useful	14.3	
Recommended changes			
Add (include) this feature in TR Manual			100.0
Test exercises, questions, checklists, model tests		9.5	
Weights assigned to units when evaluating		4.8	
Add (include) this feature in C. Guide		19.0	
Add (include) in either C. Guide or TR Manual		9.5	
Central multi-subject publication re: general evaluation		4.8	
Leave "as is"		4.8	
Need a proficiency levels document with skills clarified and work products displayed		14.3	
Illustrate how to evaluate processes and applications e.g., problem solving		14.3	
Emphasize group (program) evaluation		9.5	
Checklists for use with each student		9.5	

Chart 42 Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: 1-6 Drama

Responses to Interview Questions		Percentage of Responses		
		Curriculum Guide	AE Teacher Resource	
Yes, evaluating pupil progress is addressed		83.3	66.7	
No, evaluating pupil progress is not addressed		16.7	33.3	
Uses:				
Basis for evaluating i.e., checklist of coverage/content/objectives		20.0	20.0	
Sample tools are used verbatim for evaluation			40.0	
I use the marking/evaluating procedures described		20.0	40.0	
Overall rationale and philosophy as basis for evaluations		20.0		
Don't recall using for this purpose		20.0		
Used to obtain evaluation weightings		20.0		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 3.8	2 = difficult			S.D. = .71
Standard deviation (S.D.) = .50	3 = partly easy, partly difficult	25.0		N = 2
N = 4	4 = easy	75.0	50.0	
	5 = very easy		50.0	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.3	2 = useless			S.D. = 1.4
Standard deviation (S.D.) = .5	3 = parts are useful	75.0	50.0	N = 2
N = 4	4 = useful	25.0		
	5 = very useful		50.0	
Recommended changes				
Leave "as is"		28.6	100.0	
Test exercises, questions, checklists, model tests		28.6		
Need a proficiency levels document with skills clarified and work products displayed		14.3		
Emphasize group (program) evaluation		14.3		
Checklists for use with each student		14.3		

Chart 43 **Evaluating Pupil Progress Support in Curriculum Guides and Companion Publications: Art 10-30.**

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE Teacher Resource
Yes, evaluating pupil progress is addressed		71.4	
No, evaluating pupil progress is not addressed		28.6	100.0
Uses:			
Basis for evaluating i.e., checklist of coverage/content/objectives		16.7	
Overall rationale and philosophy as basis for evaluations		22.2	
Not used/lacks practicality. Very general		22.2	
Communicating/conferencing with student and/or parents		5.6	
I don't use much		16.7	
Used to obtain evaluation weightings		5.6	
Communicating with students		5.6	
I use the guidelines in the various publications		5.6	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.7	2 = difficult	20.0	S.D. =
Standard deviation (S.D.) = 1.3	3 = partly easy, partly difficult	30.0	N =
N = 10	4 = easy	10.0	
	5 = very easy	40.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.8	2 = useless		S.D. =
Standard deviation (S.D.) = 1.0	3 = parts are useful	60.0	N =
N = 10	4 = useful		
	5 = very useful	40.0	
Recommended changes			
Add (include) this feature in C. Guide		25.0	
Add (include) in either C. Guide or TR Manual		10.0	
Need a proficiency levels document with skills clarified and work products displayed		20.0	
Alert teachers better about areas to be tested in provincial exams		5.0	
Illustrate how to evaluate processes and applications		15.0	
Emphasize group (program) evaluation		15.0	
Provide examples of higher cognitive level questions (application and higher) and other subjects		5.0	
Stress teacher-student rapport, real trust, self-evaluation		5.0	

CURRICULUM PUBLICATIONS SUPPORT FOR EVALUATING PUPIL PROGRESS: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Findings from relevant research on curriculum implementation are consistent with concerns expressed by teachers in this survey. Both sources noted that significant levels of concern related to the impact of a new or revised program on students and how to assess their achievement appeared during middle or later stages of implementation (Harvey Research, 1988; pp. 30-34). Conclusion 3.4 in this report stated "That among needs not mentioned as apparent when new or revised programs were first announced, evaluation of student achievement ranks highest by far in frequency of mention and as a challenge for teachers".

Evaluating pupil progress support in curriculum guides was thought to be included by 54.4 percent of the school-based respondents. Many reported using the **Program of Studies** listings of content, statements of objectives, philosophy and rationale as a checklist of coverage and as a basis for planning evaluations. A high degree of variability was noted in the "Yes" responses (indicating that support was provided in the guide) and in the usefulness ratings. In some instances it is the companion curriculum implementation support documents which provide the most help on this topic.

Companion publications containing support for evaluating were identified by over 100 teachers and principals (75% of those responding about companion documents). Overall, the Health publications (guides and resource manuals) were thought, by many, not to address the topic and the usefulness rating for the 1-6 Health Resource Manual was at "2" (useless). Another relatively low set of usefulness ratings was assigned to the 1--6 Language Arts publications

Preferred locations for information about assessing pupil performance were widely spread. In addition to resource manuals (6.8%), curriculum guides (17.0%), either of the foregoing (13.6%), school educators recommended a proficiency levels document for the respective programs (20.4%), test item banks (15.3%), illustrative test exercises and items (22.6%) and illustrations about how to assess process skills (10.6%) (Table 26).

General satisfaction levels about supportive information on evaluation was inferred from the "leave as is" comments for curriculum guides. Relative to the satisfaction ratings accorded information in curriculum guides on teaching strategies (31.4%) and coping with individual differences (30.1%), the rating for evaluation was quite low (19.1%).

Comments about uses for evaluation purposes of curriculum support publications are displayed in Table 25. As noted previously, the **Program of Studies** components of support documents are used extensively as a basis for evaluating i.e., as checklists of coverage/content/objectives (reported by 33.0% and 10.4% of respondents re: curriculum guides and resource documents respectively). The information used most frequently are evaluation tools (50.7%) such as tests and illustrative exercises and marking procedures (37.3%) apparently found by significant numbers of users in companion documents.

Table 25 Evaluating Pupil Progress Information Found Useful in Curriculum Support Publications

Interview Statements Re: Use of Evaluation Information	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Basis for evaluating i.e., checklist of coverage/content/objectives	33.0	10.4
Not used; after initial perusal I have not read	8.6	6.0
Overall rationale and philosophy as a basis for evaluating	9.2	4.5
Not needed; not used for evaluating	5.4	1.5
Not used; lacks practicality. Very general	18.4	16.4
I don't recall using for this purpose	3.2	
I use publisher's or district's materials and ideas	4.3	7.5
Sample tools are used verbatim for evaluation	15.7	50.7
I use the marking/evaluating procedures described	11.9	37.3
I don't use for this purpose	5.4	6.0
To obtain weightings to assign in evaluations	5.9	3.0
Specific examples are useful	-	9.0

Recommended changes with respect to evaluation information are listed in Table 26, where suggestions made by more than 3 percent of the respondents are recorded. The most frequently mentioned additions suggested for evaluation support were illustrations about specifics and tangible ready-to-use materials. Test item banks, model tests and checklists, proficiency levels documents and illustrations about to evaluate process skills were recommendations of these kinds.

Table 26 Evaluating Pupil Progress Support: Recommended Changes in Curriculum Publications

Interviewees' Recommendations Re: Changes/Additions/Deletions	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Provide test item banks	15.3	15.6
Provide test exercises, questions, checklists, model tests	22.6	19.5
Suggest weights assigned to units when evaluating	4.3	-
Add (include) this feature in the C. guide	17.0	-
Add (include) this feature in TR Manual	6.8	23.8
Add (include) in either TR Manual or C. Guide	13.6	2.6
Provide a central multi-subject monograph on the topic	4.7	1.3
Leave "as is"	19.1	27.3
Need a proficiency levels document with skills clarified and work products displayed	20.4	-
Alert teachers better about areas to be tested in provincial exams	2.1	9.1
Illustrate how to evaluate processes and applications e.g., problem solving	10.6	20.8
Emphasize program (group) evaluation	6.4	-
Provide checklists for use with each student	5.5	6.5
Provide examples of higher cognitive level questions (application and higher)	5.5	1.3
Indicate how to evaluate affective domain accomplishments	5.1	1.3
I need help with "wholistic" evaluation	3.0	1.3
Stress teacher-student rapport, real trust,and self-evaluation	3.4	1.3
Include standardized, common marking schemes	4.3	-
I don't need personally; Leave "as is"	-	10.4

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the data obtained from the interviews, generalizations from relevant research literature and the experience of the study team, it is concluded:

C 7.1 That evaluation of pupil progress eventually becomes a high priority and challenging need for school-based educators;

C 7.2 That insufficient support for evaluation tasks is currently provided by Alberta Education (although what is provided is appropriate and of high quality);

C 7.3 That ready-to-use tangibles and illustrations of evaluation tools and procedures are most needed and are most likely to be used; and

C 7.4 That applications of computer technologies have been used successfully elsewhere in assisting school personnel in this area and that a pilot venture, delimited in scope, is warranted to assess their potential in Alberta.

It is recommended:

R 7.1 That, in preparing curriculum implementation support publications for each new or revised program, that one document in the set be provided with evaluation information (complete with illustrations) for assessing achievement of selected objectives in each goal area;

R 7.2 That hands-on materials for use by teachers be provided, as appropriate e.g., scoring instructions, test exercises, checklists, self-evaluation rating sheets, test items such as those used during the piloting of the 1-6 Health publications, etc.;

R 7.3 That a pilot project be considered to test the feasibility and effectiveness of computer and distance education technologies with respect to the following:

7.3.1 A computerized test item filing system with facility for down-loading to schools microcomputers;

7.3.2 a computerized test development system, including capability for tailoring tests to match proficiency levels of individuals, again for use by school personnel using school-based microcomputers;

7.3.3 inclusion of objectives from both the affective and cognitive domains from selected themes in the 1-6 Health, 7-9 Health and Personal Life Skills and CALM 20 programs.

R 7.4 That a pilot project be considered in one or two program areas at several grade levels to test the acceptability, efficacy and feasibility of proficiency levels documents which would describe the specific understandings, skills and attitudes intended for each grade and the expected levels of achievement for classes of varying aptitudes and backgrounds.

REFERENCES AND REFERENCING

An integral part of each **set** of publications prepared to assist program implementers are lists of references. This information is sometimes formatted and linked with specific objectives in various referencing systems. This section of the report details the findings from the school interviews with respect to the references provided in existing publications and aspects which might well be retained, and are in need of improvement or augmentation.

Research findings reported early in this report made reference to the reaction of one group of teachers to the references provided in curriculum guides. In the section reporting on the statistical significance of group differences (pp. 13-15) teachers who styled themselves as "not competent" to teach the subject assigned (N = 27) were shown to differ from their self-styled '"competent" counterparts in several areas. One difference was in their ratings about understandability (difficulty) of curriculum guides with respect to teaching strategies; the self-reported "not-competents" rated the information more difficult. This group also found references in curriculum guides more difficult to understand and less useful than the comparison group. One would expect the differences identified in Table 4 between this group and their "competent'" counterparts. Teachers facing a new assignment are relatively more dependent on the type and quality of support provided in curriculum guides about teaching strategies and the information obtainable from references. As noted earlier, the foregoing underlines the importance of these aspects of curriculum guides to teachers in these circumstances.

Once again, the results of this survey are congruent with generalizations obtained from studies using the **Concerns-based Adoption Model (CBAM)** and its successor the **Innovations Profile Model** (Harvey Research, 1988, pp. 30-34). Table 4 data indicate that differences between teachers who feel secure vs. those who feel insecure about teaching assignments did not appear in the early stages of the program implementation sequence. Instead, the concerns about references likely became more pronounced at about Stage 3 of the CBAM: "*Task Related Concerns: Management tasks i.e., best use of information and resources* . . ." and the Materials dimension of the Innovations Profile Model (Leithwood and Montgomery, 1980, pp. 193-214).

Since pilots of new or revised curricula, by definition, are conducted prior to general implementation, feedback based on perceptions usually acquired at later stages is not available. The implications for those reviewing and refining the supports for implementation is that there is merit in collecting data about implementation at middle and late stages as well. This notion supports Conclusion 4.4 in this report: *That the price of success is eternal vigilance, hence the recommendations which follow concerning securing feedback by continuing field studies about the efficacy of curriculum support publications and services.*

REFERENCES AS A COMPONENT IN CURRICULUM GUIDES

The interviewees in the schools were asked to comment about and rate the references provided in the curriculum guide: namely, *information about other teachers references, learning resources and instructional materials*. They were asked to list their uses and to rate them on difficulty and usefulness only if the curriculum guide included them. Table 27 indicates that 69.3 percent of those interviewed at the schools felt that references were provided in the curriculum guide for the program they were critiquing. The least support for this perception came from teachers critiquing the ECS publication (25.0%), 1-6 Math (30.8%) and French 10-30 (42.9%). The average usefulness rating was midway between "parts are useful" and "useful" on the 5-point scale used with the lowest ratings assigned to ECS, 1-6 Language Arts, 1-6 Math and 7-9 Science.

Table 27 Curriculum Guides Containing Suggestions for References and Referencing

Program	Percentage "Yes" Responses	Usefulness Rating*	
		Mean	(N)
ECS Philosophy, Goals . . .	25.0	2.5	(2)
1-6 Health	93.8	4.0	(13)
1-6 Language Arts	87.1	3.0	(24)
1-6 Math	30.8	3.0	(7)
1-6 Drama	83.3	4.0	(4)
7-9 Language Arts	90.0	4.1	(24)
7-9 Math	56.5	3.6	(13)
7-9 Science	63.2	3.3	(11)
7-9 Health and PL Skills	84.2	4.3	(15)
Reading 10	85.7	3.6	(5)
CALM 20	60.0	4.0	(8)
10-12 Math	52.9	4.2	(8)
10-12 English	75.0	3.6	(13)
Art 10-30	78.6	4.4	(13)
French 10-30	42.9	4.0	(4)
Totals (weighted averages)	**69.3**	**3.7**	**(165)**

*Note: usefulness ratings were based on the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

REFERENCES AS A COMPONENT IN COMPANION PUBLICATIONS

Table 28 indicates that relatively low proportions of respondents rating 1-6 Language Arts and 1-6 Math feel that supplementary support publications provide significant aid with respect to references. This finding, coupled with the low utility ratings assigned to reference components in the respective curriculum guides suggest a review of this feature is in order for these programs. For the other programs the usefulness ratings are generally at "4" (useful) for at least one type of publication. This finding suggests there is modest room for improvement in this feature by some means.

Table 28 Companion Publications Containing Information Re: References and Referencing

Program	Alberta Education % Yes (Usefulness*)		Publisher's % Yes (usefulness*)
	Monograph, Handbook	Resource Manual	Resource Guide or Manual or Supplement
1-6 Health		50.0 (2.6)	
1-6 Language			40.0 (-)
1-6 Drama		100.0 (3.0)	
1-6 Math			25.0 (4.0)
7-9 Language	100.0 (3.0)		75.0 (2.0)
7-9 Math			
7-9 Health		16.7 (4.0)	
Reading 10	100.0 (5.0)		
Reading 10	50.0 (-)		
Art 10-30		100.0 (4.5)	
French 10-30		100.0 (5.0)	
7-9 Science			66.7 (4.5)
CALM 20		80.0 (4.4)	
10-12 English			

*Note: usefulness ratings are recorded within parentheses, are sometimes based on small numbers and applied the following scale: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

PREFERRED LOCATIONS FOR REFERENCES INFORMATION

At the end of the the school interviews about references and referencing respondents were asked to recommend changes, including additions or deletions, to this feature in the publication they were critiquing. Table 29 displays some of these recommendations -- those pertaining to where references should be placed.

Table 29 Locations and Changes to Information about References and Referencing: Percentages of Total Recommendations

Program	Add to and/or Retain in:				Leave "as is"			
	Teacher Resource Manual*	Curric. Guide	either TRM or G. Guide	Total %	Teacher Resource Manual*	Curric. Guide	Not required	Total %
1-6 Health	5.9	5.9	-	11.8			35.3	35.3
7-9 Health	4.8	4.8	9.5	19.1			28.6	28.6
CALM 20	-	20.0	-	20.0			30.0	30.0
1-6 Language Arts	-	31.4	11.4	42.8			11.4	11.4
7-9 Language Arts	-	17.9	5.1	23.0			30.8	30.8
10-12 English	4.2	20.8	-	25.0			29.2	29.2
Reading 10	9.1	9.1	9.1	27.3			18.2	18.2
1-6 Math	3.3	30.0	3.3	36.6			16.7	16.7
7-9 Math	-	20.6	2.9	23.5			8.8	8.8
10-12 Math	-	13.6	22.7	36.3			18.2	18.2
7-9 Science	4.3	17.4	4.3	26.0			13.0	13.0
French 10-30	-	11.8	5.9	17.7			23.5	23.5
1-6 Drama	-	14.3	-	14.3			-	-
Art 10-30	-	12.5	6.3	18.8			37.5	37.5
% of Total Recommendations	1.8	18.5	6.8	27.1			21.2	21.2
% of Total Respondents	2.4	24.1	8.8	35.3			27.7	27.7

*Note: Teacher Resource Manual (TRM) refers to either an Alberta Education document (or monograph) existing or needed, or a publisher's manual

Support from the school group is highest for placement of references in the respective curriculum guides. However, an equal number also suggest filing references on computer tape and providing access to such a network via the school microcomputers (Table 31).

Satisfaction levels with respect to references in curriculum support publications can be inferred from the 'leave as is" responses reported in Table 29. The highest satisfaction ratings are assigned by school personnel to Art 10-30, 7-9 Language Arts, 10-12 English and the Health and CALM 20 programs. The least satisfaction is reported for publications identified with 1-6 Language Arts, 7-9 Math and 7-9 Science. The overall satisfaction indication is the 27.7% of total respondents recommending "leave as is". This index is significantly higher than the one reported for evaluation support,and nearly equal to ratings assigned to teaching strategies and support about accommodating individual differences.

SUPPORT FROM REFERENCES:
DETAILED COMMENTS AND RATINGS BY PROGRAM

Once again a series of charts (Charts 44-57) provided next provide detailed comments and ratings about types of curriculum support publications by program. These data will be most useful for those responsible for particular programs. Others will find the descriptions in the Summary section adequate for their needs. The cautions mentioned previously concerning small numbers are applicable for this section as well.

Chart 44 References and Referencing Support in Curriculum Guides and Companion Publications: 1-6 Health

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource (Manual)	
Yes, references are included		93.8	50.0	
No, references are not included		6.3	50.0	
Uses:				
Planning instruction		66.7	37.5	
None. I don't use for this purpose			25.0	
I use the C. Guide instead			25.0	
Pupil assignments; Research topics and pupil's references			12.5	
I rarely use for this purpose (use only very selectively)		13.3		
Budgeting or selecting for purchase		6.7		
I don't use (restricted local funding or difficulty or access)		13.3		
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.6
Mean (average, $\bar{x}$) = 4.8	2 = difficult			S.D. = .55
Standard deviation (S.D.) = .38	3 = partly easy, partly difficult			N = 5
N = 13	4 = easy	15.4	40.0	
	5 = very easy	84.6	60.0	
How useful?				
On 5-point scale:	1 = very useless		20.0	$\bar{x}$ = 2.6
Mean (average, $\bar{x}$) = 4.0	2 = useless		20.0	S.D. = 1.1
Standard deviation (S.D.) = .91	3 = parts are useful	38.5	40.0	N = 5
N = 13	4 = useful	23.1	20.0	
	5 = very useful	38.5		
Recommended changes				
Provide computer network and/or electronic bulletin board for updating/revising		23.5	17.6	
Send out revisions, updates, substitute pages as required		5.9	11.8	
In Focus has been very helpful			5.9	
How to integrate within and among subjects			5.9	
Add AV materials and computer software		11.8	5.9	
Leave "as is"		35.3		
Highlight references which are readily accessible. Provide for sharing locally			5.9	
List alternative refs. as substitutes			5.9	
Need computer discs with FAX complement		5.9	11.8	
Add (include) in TR Manual		5.9	11.8	
Add (include) in either C. Guide or TR Manual			5.9	
Provide inservice for teachers on using computerized system		5.9		
Add (include) in C. Guide		5.9		
Leave "as is"			11.8	

*Alberta Education

Chart 45 References and Referencing Support in Curriculum Guides and Companion Publications: 7-9 Health

Responses to Interview Questions		Percentage of Responses: Curriculum Guide	Percentage of Responses: AE* Teacher Resource (Manual)	
Yes, references are included		84.2	16.7	
No, references are not included		15.8	83.3	
Uses:				
None. I don't use for this purpose		11.1	25.0	
Budgeting or selecting for purchase		5.6		
None; I use the school system directory and media centre and/or my personal library		11.1		
I use the TR Manual instead		5.6		
Planning instruction		55.6		
I rarely use for this purpose (use only very selectively)		5.6		
I use for prescribed resources only		5.6		
Budgeting or selecting for purchase			25.0	
None; I use the school system directory and media centre and/or my personal library			25.0	
I use the curriculum guide instead			25.0	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 5.0	2 = difficult			S.D. = 0
Standard deviation (S.D.) = 0	3 = partly easy, partly difficult			N = 2
N = 15	4 = easy			
	5 = very easy	100.0	100.0	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.3	2 = useless	6.7		S.D. = 1.4
Standard deviation (S.D.) = 1.0	3 = parts are useful	20.0	50.0	N = 2
N = 15	4 = useful	13.3		
	5 = very useful	60.0	50.0	
Recommended changes				
Send out revisions, updates, substitute page as required		19.0	16.7	
Leave "as is"		28.6		
Add (include) in C. Guide		4.8	16.7	
Add (include) in either C. Guide or TR Manual		9.5	16.7	
Provide computer network and/or electronic bulletin board for updating/revising		9.5		
How to integrate within and among subjects		4.8		
Add AV materials and computer software		19.0		
Add (include) in TR Manual		4.8		
Leave "as is"			50.0	

*Alberta Education

Chart 46 **References and Referencing Support in Curriculum Guides and Companion Publications: CALM 20**

Responses to Interview Questions		Percentage of Responses: Curriculum Guide	Percentage of Responses: AE* Teacher Resource (Manual)	
Yes, references are included		60.0	80.0	
No, references are not included		40.0	20.0	
Uses:				
Planning instruction		54.5	50.0	
Budgeting or selecting for purchase		18.2		
I don't use (restricted local funding or difficulty of access)		9.1	12.5	
Planning differentiated instruction			12.5	
I use the TR Manual instead		9.1		
I don't have much time to use other references		9.1		
Budgeting or selecting for purchase			25.0	
How understandable?				
On 5-point scale:	1 = very difficult			$\bar{x}$ = 4.9
Mean (average, $\bar{x}$) = 4.8	2 = difficult			S.D. = .38
Standard deviation (S.D.) = .46	3 = partly easy, partly difficult			N = 7
N = 8	4 = easy	25.0	14.3	
	5 = very easy	75.0	85.7	
How useful?				
On 5-point scale:	1 = very useless			$\bar{x}$ = 4.4
Mean (average, $\bar{x}$) = 4.0	2 = useless	12.5		S.D. = .98
Standard deviation (S.D.) = 1.1	3 = parts are useful	12.5	28.6	N = 71
N = 8	4 = useful	37.5		
	5 = very useful	37.5	71.4	
Recommended changes				
Provide computer network and/or electronic bulletin board for updating/revising		30.0	16.7	
Send out revisions, updates, substitute pages as required			25.0	
How to integrate within and among subjects		10.0	8.3	
Leave "as is"		30.0		
Local references listings could be filed via computer			8.3	
Add (include) in C. Guide		20.0		
Need computer discs with FAX complement		10.0		
Leave "as is"			33.3	
Add (include) in C. Guide			8.3	

*Alberta Education

Chart 47 **References and Referencing Support in Curriculum Guides and Companion Publications: 1-6 Language Arts**

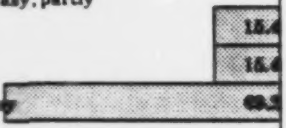
Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Publisher's/District's TR Guide
Yes, references are included		87.1	40.0
No, references are not included		12.9	60.0
Uses:			
Planning instruction		31.3	50.0
I rarely use for this purpose (use only very selectively)		25.0	50.0
None. I don't use for this purpose		15.6	
Budgeting or selecting for purchase		12.5	
None; I use the school system directory and media centres and/or my personal library		12.5	
Pupil assignments; Research topics and pupils' references		3.1	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = .71
Standard deviation (S.D.) = .50	3 = partly easy, partly difficult		N = 2
N = 24	4 = easy	41.7	50.0
	5 = very easy	58.3	50.0
How useful?			
On 5-point scale:	1 = very useless	8.3	$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.0	2 = useless	20.8	S.D. = 0
Standard deviation (S.D.) = 1.1	3 = parts are useful	45.8	N = 2
N = 24	4 = useful	12.5	100.0
	5 = very useful	12.5	
Recommended changes			
Leave "as is"		11.4	
Provide computer network and/or electronic bulletin board for updating/revising		17.1	
Send our revisions, updates, substitute pages as required		17.1	
List the "hands on" material for use by students		2.9	
Xeroxing privileges would be appreciated		2.9	
Highlight references which are readily accessible. Provide for sharing locally		2.9	
Local references listings could be filed via computer		2.9	
Add (include) in C. Guide		31.4	
Add (include) in either C. Guide or TR Manual		11.4	
Leave "as is"			100.0

Chart 48 References and Referencing Support in Curriculum Guides and Companion Publications: 7-9 Language Arts

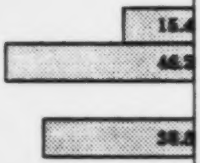
Responses to Interview Questions		Percentage of Responses: Curriculum Guide	Percentage of Responses: Monograph
Yes, references are included		90.0	100.0
No, references are not included		10.0	
Uses:			
I rarely use for this purpose (use only very selectively)		24.1	100.0
Planning instruction		41.4	
None. I don't use for this purpose		6.9	
Budgeting or selecting for purchase		13.8	
None; I use the school system directory and media center and/or my personal library		3.4	
I use for prescribed resources only		3.4	
I don't use (restricted local funding or difficulty of access)		3.4	
Add annotations about novels		3.4	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.7	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .46	3 = partly easy, partly difficult		N = 2
N = 25	4 = easy	28.0	
	5 = very easy	72.0	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 4.1	2 = useless	4.2	S.D. = 0
Standard deviation (S.D.) = .93	3 = parts are useful	25.0	100.0 N = 2
N = 24	4 = useful	29.2	
	5 = very useful	41.7	
Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		20.5	
Provide inservice for teachers on using a computerized system		5.1	
List the "hands on" material for use by students		5.1	
Xeroxing privileges would be appreciated		2.6	
How to integrate within and among subjects		2.6	
Add AV materials and computer software		5.1	
Leave "as is"		30.8	
Local references listings could be filed via computer		2.6	
Need computerized access for use in meetings and for P.D. days		2.6	
Add (include) in C. Guide		17.9	
Add (include) in either C. Guide or TR Manual		5.1	

Chart 49 **References and Referencing Support in Curriculum Guides and Companion Publications: 10-12 English**

Responses to Interview Questions		Percentage of Responses Curriculum Guide	
Yes, references are included		75.0	
No, references are not included		25.0	
Uses:			
Planning instruction		26.3	
None. I don't use for this purpose		31.6	
I rarely use for this purpose (use only very selectively)		21.1	
None; I use the school system directory and media centre and/or my personal library		5.3	
Copyright laws needs to be clarified		5.3	
I don't use (restricted local funding of difficulty of access)		5.3	
I use the TR Manual instead		5.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.5	2 = difficult		S.D. =
Standard deviation (S.D.) = .78	3 = partly easy, partly difficult		N =
N = 13	4 = easy		
	5 = very easy		



How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.6	2 = useless		S.D. =
Standard deviation (S.D.) = 1.2	3 = parts are useful		N =
N = 13	4 = useful		
	5 = very useful		



Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		12.5	
Send our revisions, updates, substitute pages as required		20.8	
Add AV materials and computer software		12.5	
Leave "as is"		29.2	
Add (include) in C. Guide		20.8	
Add (include) in TR Manual		4.2	

Chart 50 **References and Referencing Support in Curriculum Guides and Companion Publications: Reading 10**

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Monograph
Yes, references are included		85.7	100.0
No, references are not included		14.3	
Uses:			
None. I don't use for this purpose		14.3	50.0
Budgeting or selecting for purchase		14.3	
Planning instruction		28.6	
None; I use the school system directory and media centre and/or my personal library		14.3	
I use for prescribed resources only		14.3	
I don't use (restricted local funding or difficulty of access)		14.3	
Budgeting or selecting for purchase			50.0
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .89	3 = partly easy, partly difficult	20.0	N = 1
N = 5	4 = easy		
	5 = very easy	80.0	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 3.6	2 = useless	20.0	S.D. = 0
Standard deviation (S.D.) = 1.3	3 = parts are useful	40.0	N = 1
N = 5	4 = useful		
	5 = very useful	40.0	100.0
Recommended changes			
Leave "as is"		18.2	
Provide computer network and/or electronic bulletin board for updating/revising		18.2	
Send out revisions, updates, substitute pages as required		18.2	
List the "hands on" material for use by students		9.1	
Add AV materials and computer software		9.1	
Add (include) in C. Guide		9.1	
Add (include) in TR Manual		9.1	
Add (include) in either C. Guide or TR Manual		9.1	
Leave "as is"			100.0

Chart 51 References and Referencing Support in Curriculum Guides and Companion Publications: 1-6 Math

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses Publisher's/District's TR Guide
Yes, references are included		30.8	25.0
No, references are not included		69.2	75.0
Uses:			
Planning instruction		8.3	50.0
None. I don't use for this purpose			50.0
I rarely use for this purpose (use only very selectively)		33.3	
Budgeting or selecting for purchase		8.3	
None; I use the school system directory and media centre and/or my personal library		16.7	
I use for prescribed resources only		8.3	
I don't use (restricted local funding or difficulty of access)		16.7	
Pupil assignments; Research topics and pupils' references		8.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .53	3 = partly easy, partly difficult		N = 1
N = 7	4 = easy	42.9	100.0
	5 = very easy	57.1	
How useful?			
On 5-point scale:	1 = very useless	28.6	$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 3.0	2 = useless		S.D. = 0
Standard deviation (S.D.) = 1.0	3 = parts are useful	57.1	N = 1
N = 7	4 = useful		100.0
	5 = very useful	14.3	
Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		13.3	20.0
Provide inservice for teachers on using a computerized system			20.0
Leave "as is"		16.7	
Add (include) in TR Manual			20.0
Send out revisions, updates, substitute pages as required		10.0	
Provide examination copies of references for local perusal		3.3	
Multiple prescriptions can increase costs		3.3	
List the "hands on" material for use by students		13.3	
Highlight references which are readily accessible. Provide for sharing locally		14.3	
Add (include) in C. Guide		30.0	
Add (include) in TR Manual		3.3	
Add (include) in either C. Guide or TR Manual		3.3	
Leave "as is"			40.0

Chart 52 References and Referencing Support in Curriculum Guides and Companion Publications: 7-9 Math

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Problem Solving Monograph	District or Publishers TR Guide
Yes, references are included		56.5		
No, references are not included		43.5	100.0	100.0
Uses:				
I use the TR Manual instead		6.7		100.0
Planning instruction		20.0		
None. I don't use for this purpose		6.7		
I rarely use for this purpose (use only very selectively)		26.7		
Budgeting or selecting for purchase		6.7		
None; I use the school system directory and media centre and/or my personal library		13.3		
I use for prescribed resources only		6.7		
Planning differentiated instruction		6.7		
Need references about how to integrate		6.7		
How understandable?				
On 5-point scale:	1 = very difficult		$\bar{x}$ =	$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.7	2 = difficult		S.D. =	S.D. =
Standard deviation (S.D.) = .48	3 = partly easy, partly difficult		N =	N =
N = 13	4 = easy	30.8		
	5 = very easy	69.2		
How useful?				
On 5-point scale:	1 = very useless		$\bar{x}$ =	$\bar{x}$ =
Mean (average, $\bar{x}$) = 3.6	2 = useless	15.4	S.D. =	S.D. =
Standard deviation (S.D.) = 1.1	3 = parts are useful	38.5	N =	N =
N = 13	4 = useful	15.4		
	5 = very useful	30.8		
Recommended changes				
Send out revisions, updates, substitute pages as required		8.8	50.0	
Leave "as is"			50.0	100.0
Provide computer network and/or electronic bulletin board for updating/revising		26.5		
Provide inservice for teachers on using a computerized system		5.9		
List the "hands on" material for use by students		5.9		
Xeroxing privileges would be appreciated		2.9		
How to integrate within and among subjects		2.9		
Add AV materials and computer software		5.9		
List alternative refs. as substitutes		2.9		
Local references listings could be filed via computer		5.9		
Add (include) in C. Guide		20.6		
Add (include) in either C. Guide or TR Manual		2.9		
Leave "as is"		8.8		

Chart 53 References and Referencing Support in Curriculum Guides and Companion Publications: 10-12 Math

Responses to Interview Questions		Percentage of Responses	
		Curriculum Guide	
Yes, references are included		52.9	
No, references are not included		47.1	
Uses:			
Planning instruction		50.0	
I rarely use for this purpose (use only very selectively)		20.0	
None; I use the school system directory and media centre and/or my personal library		20.0	
I use for prescribed resources only		10.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.8	2 = difficult		S.D. =
Standard deviation (S.D.) = .46	3 = partly easy, partly difficult		N =
N = 8	4 = easy	25.0	
	5 = very easy	75.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ =
Mean (average, $\bar{x}$) = 4.3	2 = useless		S.D. =
Standard deviation (S.D.) = .71	3 = parts are useful	12.5	N =
N = 8	4 = useful	50.0	
	5 = very useful	37.5	
Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		13.6	
Send out revisions, updates, substitute pages as required		9.1	
List the "hands on" material for use by students		4.5	
Xeroxing privileges would be appreciated		4.5	
How to integrate within and among subjects		4.5	
Add AV materials and computer software		9.1	
Leave "as is"		18.2	
Add (include) in C. Guide		13.6	
Add (include) in either C. Guide or TR Manual		22.7	

Chart 54 References and Referencing Support in Curriculum Guides and Companion Publications: 7-9 Science

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 Publisher's/District's TR Guide
Yes, references are included		63.2	66.7
No, references are not included		36.8	33.3
Uses:			
Planning instruction		18.8	50.0
Pupil assignments; Research topics and pupils' references			50.0
None. I don't use for this purpose		12.5	
I rarely use for this purpose (use only very selectively)		6.3	
None; I use the school system directory and media centre and/or my personal library		12.5	
I use for prescribed resources only		25.0	
I don't use (restricted local funding or difficulty of access)		6.3	
I use local "CRIB" material frequently		6.3	
Change references listed; existing ones too difficult for many students		6.3	
Need references about how to integrate		6.3	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .50	3 = partly easy, partly difficult		N = 2
N = 11	4 = easy	36.4	
	5 = very easy	63.6	100.0
How useful?			
On 5-point scale:	1 = very useless	9.1	$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 3.3	2 = useless	9.1	S.D. = .71
Standard deviation (S.D.) = 1.2	3 = parts are useful	45.5	N = 2
N = 11	4 = useful	18.2	50.0
	5 = very useful	18.2	50.0
Recommended changes			
Leave "as is"		13.0	
Provide computer network and/or electronic bulletin board for updating/revising		17.4	
Send out revisions, updates, substitute pages as required		17.4	
Provide inservice for teachers on using a computerized system		4.3	
How to integrate within and among subjects		8.7	
Add AV Materials and computer software		8.7	
Highlight references which are readily accessible. Provide for sharing locally		4.3	
Add (include) in C. Guide		17.4	
Add (include) in TR Manual		4.3	
Add (include) in either C. Guide or TR Manual		4.3	
Leave "as is"			100.0

Chart 55 References and Referencing Support in Curriculum Guides and Companion Publications: French 10-30

Responses to Interview Questions		Percentage of Responses Curriculum Guide	Percentage of Responses AE Teacher Resource
Yes, references are included		42.9	100.0
No, references are not included		57.1	
Uses:			
Planning instruction		20.0	66.7
Budgeting or selecting for purchase			33.3
None. I don't use for this purpose		20.0	
I rarely use for this purpose (use only very selectively)		20.0	
None; I use the school system directory and media centre and/or my personal library		10.0	
I use the TR Manual instead		10.0	
Add mastery learning references/tools/examples		10.0	
Make more detailed		10.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.5	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .58	3 = partly easy, partly difficult		N = 2
N = 4	4 = easy	50.0	
	5 = very easy	50.0	100.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 5.0
Mean (average, $\bar{x}$) = 4.0	2 = useless		S.D. = 0
Standard deviation (S.D.) = 1.2	3 = parts are useful	50.0	N = 2
N = 4	4 = useful		
	5 = very useful	50.0	100.0
Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		11.8	
Send out revisions, updates, substitute pages as required		17.6	
Provide inservice for teachers on using a computerized system		5.9	
Xeroxing privileges would be appreciated		11.8	
Add AV materials and computer software		11.8	
Leave "as is"		23.5	
Add (include) in C. Guide		11.8	
Add (include) in either C. Guide or TR Manual		5.9	

Chart 56 References and Referencing Support in Curriculum Guides and Companion Publications: 1-6 Drama

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource
Yes, references are included		83.3	100.0
No, references are not included		16.7	
Uses:			
Planning instruction		40.0	50.0
None. I don't use for this purpose		20.0	50.0
I rarely use for this purpose (use only very selectively)		20.0	
I use the TR Manual instead		20.0	
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 4.8	2 = difficult		S.D. = 0
Standard deviation (S.D.) = .5	3 = partly easy, partly difficult		N = 1 100.0
N = 4	4 = easy	25.0	
	5 = very easy	75.0	
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 3.0
Mean (average, $\bar{x}$) = 4.0	2 = useless		S.D. = 0
Standard deviation (S.D.) = .82	3 = parts are useful	25.0	100.0 N = 1
N = 4	4 = useful	50.0	
	5 = very useful	25.0	
Recommended changes			
Provide computer network and/or electronic bulletin board for updating/revising		14.3	
Send out revisions, updates, substitute pages as required		28.6	
How to integrate within and among subjects		28.6	
Need computer discs with FAX complement		14.3	
Add (include) in C. Guide		14.3	

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Chart 57 References and Referencing Support in Curriculum Guides and Companion Publications: Art 10-30

Responses to Interview Questions		Percentage of Responses Curriculum Guide	 AE* Teacher Resource
Yes, references are included		78.6	100.0
No, references are not included		21.4	
Uses:			
Planning instruction		41.2	66.7
Budgeting or selecting for purchase		5.9	
None. I don't use for this purpose		5.9	
I rarely use for this purpose (use only very selectively)		17.6	
None; I use the school system directory and media centre and/or my personal library		5.9	
Change references listed; existing ones too difficult for many students		23.5	
Budgeting or selecting for purchase			33.3
How understandable?			
On 5-point scale:	1 = very difficult		$\bar{x}$ = 4.0
Mean (average, $\bar{x}$) = 4.6	2 = difficult		S.D. = 1.4
Standard deviation (S.D.) = .65	3 = partly easy, partly difficult	7.7	N = 2 50.0
N = 13	4 = easy	23.1	
	5 = very easy	69.2	50.0
How useful?			
On 5-point scale:	1 = very useless		$\bar{x}$ = 4.5
Mean (average, $\bar{x}$) = 4.4	2 = useless		S.D. = .71
Standard deviation (S.D.) = .87	3 = parts are useful	23.1	N = 2
N = 13	4 = useful	15.4	50.0
	5 = very useful	61.5	50.0
Recommended changes			
Multiple prescriptions can increase costs		6.3	33.3
Leave "as is"		37.5	
Add (include) in C. Guide		12.5	33.3
Provide computer network and/or electronic bulletin board for updating/revising		6.3	
Xeroxing privileges would be appreciated		6.3	
Highlight references which are readily accessible. Provide for sharing locally		18.8	
List alternative refs. as substitutes		6.3	
Add (include) in either C. Guide or TR Manual		6.3	
Leave "as is"			33.3

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CURRICULUM PUBLICATIONS SUPPORT PROVIDED BY REFERENCES: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Findings from related research indicates that teachers express concerns about identifying references at a middle stage during curriculum implementation. This was also the case in the present survey. In addition, it was noted in the present study that those feeling relatively insecure about their teaching assignment were most negative about the understandability (difficulty) and usefulness of the references provided.

References were thought to be included in curriculum guides by over two-thirds of those interviewed at the schools. The ECS publication, and guides for 1-6 Math and French 10-30 received the least mentions for including this feature. The average usefulness rating for references in curriculum guides was midway between "parts are useful" and "useful" with the lowest ratings assigned to ECS, 1-6 Language Arts, 1-6 Math and 7-9 Science.

References as a component in companion publications were rated as well. The findings indicated that low proportions of those commenting about supplementary documents in 1-6 Language Arts and 1-6 Math perceived that aid by means of references was included. Accordingly, a review of needs about this feature in all publications provided for these two programs seems warranted.

Preferred locations for reference information were in curriculum guides but supplemented by filing on computer tapes. Information on the latter could then be accessed using school microcomputers.

Satisfaction levels for the reference feature in curriculum support publications were much higher than for evaluation information and nearly equal to the help provided for teaching strategies and meeting individuals' needs. It was noted that improvements could be effected in most publications but particularly in 1-6 Language Arts, 1-6 Math and 7-9 Science.

Comments about uses for references are displayed in Table 30. Comments recorded for more than 3 percent of the school respondents are listed.

Table 30 Reference Information in Curriculum Support Publications: Uses reported by School Personnel.

Interview Statements Re: Use of Reference Information	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Planning instruction	39.6	55.1
None; I don't use	11.5	8.7
I rarely use (use only very selectively)	20.7	13.0
I use for budgeting or selecting for purchase	7.4	14.5
None; I use the school system directory and media centre and/or my personal library	9.2	5.8
I use for prescribed resources only	4.6	-
I don't use (due to restricted local funding or difficulty of access)	4.1	2.9
I use the TR Manual instead	2.8	-
I use the C. Guide instead	-	10.1

Table 30 data reveal that nearly half (45.5%) of the school respondents indicate nil or rare use of the reference information. On the other hand, an equal number report it is used in planning instruction and for selecting purchases.

A significant minority of school educators favor applying some form of computer technology to allow for easy access to up-to-date information about resources. This facility was also seen as a convenient mechanism for adding/deleting/updating the references. Although not included as part of the interview at this point, peer networking obviously lends itself readily to computerized networks. Peer aid is very frequently sought and accessed relative to information about instructional materials and help about how to teach. An earlier section of this report listed conclusions and recommendations on this topic (Conclusions 2.1-2.3; Recommendations 2.1-2.4). Recommendation 2.3 read as follows: *That peer networking be exploited by using appropriate current and future technologies.* In addition to accessing information about references teachers could continuously contribute and file for the use of others using facilities such as electronic bulletin boards.

Recommended changes in references suggested by school personnel are listed in Table 31. Responses by 3 percent or more respondents located in schools are recorded.

Table 31 References and Referencing: Recommended Changes in Curriculum Support Publications

Interviewee's Recommendations Re: Changes/Additions/Deletions	Percentage of Respondents	
	Curriculum Guides	Companion Documents
Provide computer network and/or electronic bulletin boards for updating and revising	22.1	15.3
Send out revisions, updates, substitute pages as required	14.5	18.6
Provide inservice for teachers on using a computerized system	2.8	1.7
In Focus has been very useful. Continue	-	3.4
Enhance understandability of some references	-	3.4
List "hands on" materials for use by students	4.4	-
Xeroxing privileges would be appreciated	2.8	-
Add how to integrate within and among subjects	3.2	5.1
Add AV materials and computer software	8.8	1.7
Leave "as is"	27.7	47.5
Highlight references which are readily accessible. Provide for local sharing	2.8	1.7
Local reference listings could be filed for access by computer	1.6	3.4
Add a bibliography for each unit	-	3.4
Need computer discs with FAX component	1.2	3.4
Add (include) in curriculum guide	24.1	5.1
Add (include) in TR Manual	2.4	6.8
Add (include) in either TR Manual or C. Guide	8.8	3.4

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the data obtained from the interviews, findings from related research and the experience of the investigators it is concluded:

C 8.1 That appropriate references are needed by practicing teachers, particularly those with the least background and experience in teaching a program;

C 8.2 That provision of information about references can be arranged by conventional means (via the print medium in curriculum support publications), by peer networking and use of computer and distance education technologies.

It is recommended:

R 8.1 That care and attention to the references components in curriculum guides be retained as priorities by Alberta Education;

R 8.2 That the information concerning references for specific programs detailed in this report be examined by Alberta Education personnel and appropriate and feasible action recommended, if required.

R 8.3 That applications of computer and distance education technologies be considered both to identify and provide updated references information;

R 8.4 That a pilot project to test the feasibility, acceptability and the usefulness of such applications be considered.

INSERVICE AND PRESERVICE EDUCATION OF TEACHERS AS SUPPORT FOR CURRICULUM IMPLEMENTATION

One of the questions posed to guide the study addressed the training required by teachers: namely; What pre-service and inservice mechanisms and strategies are best suited to support their curriculum implementation activities? The main activity undertaken to address this question was the literature review, particularly the sections on the inservice education of teachers, and preservice teacher education and curriculum change (Harvey Research, 1988, pp. 48-60).

Data collected during some of the interviews concerning supplementary service (i.e., local and regional inservice) also addressed this question. Finally, all school respondents were asked during their interview to rate and comment about the usefulness of their university teacher preparation program for preparing them to cope with curriculum change.

FACULTY OF EDUCATION PRESERVICE PROGRAMS

How useful was your university faculty of education teacher preparation program in preparing you to cope with curriculum change?

This question was answered by recording a rating on the 5-point usefulness scale provided. Results of the ratings were as follows:

1 = very useless	5.2%
2 = useless	57.5
3 = parts were useful	21.9
4 = useful	9.4
5 = very useful	6.0

The average rating on the 5-point scale was 2.5 -- midway between "useless" and "parts are useful". ECS teachers assigned the highest average rating: 3.5 -- midway between "parts were useful" and "useful". Teachers of CALM 20 recorded an average rating of 2.0 -- "useless". The remaining groups applied ratings between these extremes. Overall, ratings about the usefulness of university programs were low since only 37.3% reported at all favorably. This finding is consistent with the observation by Fullan (1982) that formal preservice teacher education programs in Canada do not directly prepare teachers to implement changes:

> More broadly, they must have abilities which are barely (if at all) touched by the formal teacher education program: interacting with and learning from peers, using and relating to subject consultants, relating to the principal, talking to and working with parents. In short, not only are there difficulties in learning how to use new methods (such as applying theory to practice), but also there is almost a total neglect of the phenomenon of how changes are and can be introduced and implemented (p. 260).

Comments about the contributions of their faculty of education in equipping them to cope with curriculum change as reported by the school-based respondents are reported in Table 32. The most frequently mentioned university contribution was "Methods courses and/or a particular professor equipped me for curriculum change". Statements about this type of experience comprised 13.6 percent of total comments. The most frequently mentioned follow-up activities (post university activity) that aided in coping with change were 'local workshop and inservices" (4.9% of total comments). The most popular general recommendation (36.2% of total comments) was that coping with change ought to be part of the university preparation program. Others (17.7%) felt that the need should be handled by local inservice.

Many teacher respondents assigned a rating to their university preparation on this matter but did not offer comments. Only one-third felt moved to recommend that it be part of university preparation. The remainder either had no opinion about responsibility or felt it was not an appropriate responsibility of the universities. Eight contributed the insightful

Table 32 The Usefulness of University Preservice Programs in Preparing One to Cope with Curriculum Change: Comments by School Respondents

Comments by Category	Percentage of Responses
The Experience at University	**22.4**
Methods courses and/or a particular professor equipped me for curriculum change	13.6
Curriculum guides are now used in the C & I courses	0.7
University courses are vague and general on this topic and of little use	2.4
Universities prepare students for change better now	0.7
Undergrad preparation was not useful; however, some grad courses were useful	3.4
An Ontario program dealt with decision-making and change	0.7
Dealt with only briefly	0.7
Follow-up after University	**7.0**
Local workshops and inservices were helpful	4.9
I was well equipped scholastically to cope	1.5
A trip to France was helpful	0.7
Recommendations	**69.6**
Would likely be more valuable after some teaching experience and familiarity with the program	5.8
Should be part of university preparation	36.2
Even awareness level provided by the university may not be enough	0.7
Would have to be kept practical, if offered	9.2
There should be local inservice, on request	17.7

comment that a teacher could only benefit from preservice or inservice about curriculum change after teaching experience and familiarity with the target program had been acquired.

Teachers with the most experience (16 or more years) were more likely than their younger counterparts to rate their university teacher preparation low on usefulness in helping them to adapt to changes in programs (Table 4, p. 15).

INSERVICE PROGRAMS: REGIONAL AND LOCAL

When time permitted in the school interviews respondents selected a supplementary document, which complemented the curriculum guide, or a support service, for critiquing. About a dozen selected one of a regional inservice or a local inservice which focussed on implementing a new or revised program. Tables 33 and 34 display their ratings about the understandability (Difficulty) and usefulness of respective inservice programs provided regionally and locally. In this portion of the interview the specific topics used to guide comments and ratings about curriculum guides and companion publications were used again;

namely, teaching strategies, individual differences, evaluating pupil progress and references and referencing.

Table 33 Regional Inservices: Ratings for Specific Topics by Program

Topic/Program	Difficulty*			Usefulness**		
	$\bar{x}$	S.D.	N	$\bar{x}$	S.D.	N
Teaching Strategies						
7-9 Language Arts	4.3	1.15	3	4.0	1.0	3
7-9 Math	5.0	.00	2	4.0	1.4	2
7-9 Science	5.0	.00	1	5.0	.00	1
Reading 10	5.0	.00	1	3.0	.00	1
CALM 20	4.8	.45	5	5.0	.00	5
Totals	4.7	-	12	4.4	-	12
Individual Differences						
7-9 Math	5.0	.00	1	5.0	.00	1
7-9 Science	5.0	.00	1	5.0	.00	1
CALM 20	4.3	1.15	3	5.0	1.73	3
Totals	4.6	-	5	5.0	-	5
Evaluating Pupil Progress						
7-9 Language Arts	4.5	.70	2	4.5	.71	2
7-9 Math	5.0	.00	1	-	-	-
7-9 Science	5.0	.00	1	5.0	.00	1
CALM 20	4.5	.58	4	3.3	2.08	3
Reading 10	5.0	.00	1	2.0	.00	1
Totals	4.7	-	9	3.7	-	7
References and Referencing						
7-9 Language Arts	5.0	.00	3	5.0	.00	3
7-9 Math	5.0	.00	1	5.0	.00	1
7-9 Science	5.0	.00	1	5.0	.00	1
7-9 Health	5.0	.00	1	5.0	.00	1
CALM 20	4.3	.58	3	4.0	1.0	3
Totals	4.8	-	9	4.7	-	9

*Difficulty: 1 = very difficult; 2 = difficult; 3 = partly easy, partly difficult; 4 = easy, 5 = very easy.
**Usefulness: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

Regional inservice programs were rated quite easy to understand relative to these four specific topics, when they were a focus for the program (Table 33). With few exceptions, the regional inservice programs were rated "4" ("useful") or higher. The lowest overall usefulness rating was with respect to evaluating student achievement where ratings by CALM 20 teachers and one from Reading 10 depressed the average slightly.

Table 34 Local Inservices: Ratings for Specific Topics by Program

Topic/Program	Difficulty*			Usefulness*		
	x̄	S.D.	N	x̄	S.D.	N
Teaching Strategies						
1-6 Language Arts	4.4	.89	5	4.8	.45	5
1-6 Math	5.0	.00	2	4.5	.71	2
7-9 Language Arts	5.0	.00	4	4.5	.57	4
7-9 Math	5.0	.00	1	3.0	.00	1
7-9 Science	5.0	.00	1	5.0	.00	1
Totals	4.8	-	14	4.6	-	14
Individual Differences						
1-6 Language Arts	4.3	1.15	3	4.7	.58	3
1-6 Math	5.0	.00	1	-	-	-
7-9 Language Arts	5.0	.00	2	4.0	1.41	2
7-9 Science	5.0	.00	1	4.0	.00	1
Totals	4.7	-	7	4.4	-	6
Evaluating Pupil Progress						
1-6 Language Arts	5.0	.00	3	4.3	1.15	3
1-6 Math	4.0	.00	1	4.0	.00	1
7-9 Language Arts	5.0	.00	2	4.0	1.41	2
7-9 Math	5.0	.00	1	5.0	.00	1
7-9 Science	5.0	.00	1	5.0	.00	1
Totals	4.9	-	8	4.4	-	8
References and Referencing						
1-6 Language Arts	5.0	.00	3	5.0	.00	3
1-6 Math	4.0	.00	1	-	-	-
7-9 Language Arts	3.0	.00	1	3.0	.00	1
7-9 Science	5.0	.00	1	5.0	.00	1
Totals	4.5	-	6	4.6	-	5

*Difficulty: 1 = very difficult; 2 = difficult; 3 = partly easy, partly difficult; 4 = easy, 5 = very easy.
**Usefulness: 1 = very useless; 2 = useless; 3 = parts are useful; 4 = useful; 5 = very useful.

Local inservice programs (Table 34) were also rated "very easy" and "easy" to understand for each topic addressed in the interview. In relative terms, teaching strategies was apparently selected far more frequently as a topic in local inservice than the other topics. Usefulness ratings were generally very high with averages midway between the "useful" and '"very useful" verbal guideposts.

INSERVICE AND PRESERVICE AS SUPPORTS FOR CURRICULUM IMPLEMENTATION: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The research question which guided data collection for this aspect of the study was: *What pre-service and inservice mechanisms and strategies are best suited to support their (teachers') curriculum implementation activities?* The major information source accessed to answer this question was the review of research literature, particularly the sections on preservice teacher education for curriculum change and the inservice education of teachers (Harvey Research, 1988, pp. 48-60). Data collected during several dozen of the interviews which dealt with regional and local inservice addressed the question as well. Finally, all teachers interviewed at the school level were asked to rate and comment about the usefulness of their university teacher preparation program in preparing them to cope with curriculum change.

SUMMARY

The usefulness of faculty of education preservice programs in equipping teachers to cope with curriculum change received low ratings. On the 5-point scale used interview results were as follows:

1 = very useless	5.2%
2 = useless	57.5
3 = parts are useful	21.9
4 = useful	9.4
5 = very useful	6.0

This finding was consistent with the observation by Fullan (1982, p. 260) that formal preservice teacher education programs in Canada do not directly prepare teachers to implement changes.

Comments about the contributions and usefulness of their faculty of education program in equipping them to handle change included the following (percentages of total responses noted parenthetically):

- Methods courses and/or a professor provided good preparation (13.6%)

- Local workshops and inservices were my main source of support (4.9%)
- Recommendations comprised 69.6% of total comments and included these
  - Should be part of university preparation (36.2%)
  - Would likely be more valuable after some teaching experience (5.8%)
  - There should be local inservice, on request (17.7%)
  - Would have to be kept practical, if offered (9.2%)

Regional and local inservices were rated for understandability (difficulty) and usefulness during several dozen of the school interviews. Table 35 displays the summaries of the ratings recorded. Overall, inservices of both types were rated high both for difficulty and usefulness. The least useful were regional inservices which addressed aspects of evaluation. Significantly more of the inservices provided locally dealt with teaching strategies than the other specific topics asked about in the interviews; namely, individual differences, evaluating pupil progress and references.

Table 35 Regional and Local Inservices Compared: Ratings* for Difficulty and Usefulness

Topic/Program	Difficulty*		Usefulness*	
	$\bar{x}$	N	$\bar{x}$	N
Teaching Strategies				
Regional inservices	4.7*	12	4.4	12
Local inservices	4.8	14	4.6	14
Individual Differences				
Regional inservices	4.6	5	5.0	5
Local inservices	4.7	7	4.4	6
Evaluating Pupil Progress				
Regional inservices	4.7	9	3.7	7
Local inservices	4.9	8	4.4	8
References and Referencing				
Regional inservices	4.8	9	4.7	9
Local inservices	4.5	6	4.6	6
Totals	4.7		4.5	

*Rating scales are interpreted as follows: Difficulty , 4 = easy, 5 = very easy; Usefulness, 3 = parts are useful, 4 = useful, 5 = very useful.

Reviews of the research literature on 1) preservice teacher education and curriculum change, and 2) the inservice education of teachers (Harvey Research, 1988, pp. 48-60) were the main sources of information for answering the question about mechanisms and strategies best suited to support curriculum implementation activities. **Findings concerning preservice teacher education and curriculum change** were as follows:

- Canadian and Alberta university faculties of education do not, in direct fashion, aim to prepare teachers in their undergraduate programs to cope with change and to contribute to change processes within their school
- None of the responses to open-ended questions by practicing teachers which were reported in a recent survey of graduates of Alberta universities (Miklos, Greene and Conklin, 1987) indicated that curriculum change posed a problem or that the universities had been remiss in equipping them to cope with such changes
- Fullan (1982) concluded *Initial teacher education, no matter how wonderful the program is, is severely limited in what it can do to prepare teachers to implement changes* (p. 262).

Findings from reviews of the empirically based research on inservice education included the following:

- inservice education of teachers can improve teachers' knowledge, attitudes and skills (Wade, 1984; Joslin, 1980).
- compulsion about attending is not a significant factor; simply being selected for inservice produces a greater effect than all other incentives combined
- four types of instruction techniques were more effective than others: observation of actual classroom practices (videotape kits would be useful here), micro teaching, video/audio feedback (about one's own performance), and practice
- self-instruction and independent study produced a large, positive effect size and were seen as feasible alternatives or supplements to the workshop format. Self-help instructional modules, independent study using multi-media kits, and various other learning aids such as worksheets and bibliographies were seen as applications of the adult learning principle that self-directed learning becomes increasingly preferred as an individual matures.
- differentiate the learning experiences of inservice participants, use the experience of teachers, and catalogue and make accessible teachers who might advise on specific pedagogical technologies.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the reviews of relevant research literature, the replies to interview questions and the judgments of the survey team members it is concluded:

C 9.1 That educating teachers to implement curriculum changes is best deferred until they have acquired familiarity with the previous program and experience teaching it;

C 9.2 That, as a consequence of C 9.1 and their records of accomplishment, inservice education by Alberta Education and local school jurisdictions and graduate programs in faculties of education are the preferred modes;

C 9.3 That inservice education can take many forms with final selections based on criteria such as

- the idiosyncrasies and needs of the individual participants
- optimal use of multi-media and sensory aids, technologies, practice, feedback and reinforcement
- the principles of adult learning.

It is recommended:

R 9.1 That overtures not be made to the faculties of education to attempt to educate student teachers, by formal and direct means, to cope with curriculum changes but that the findings from this section be shared with the faculties;

R 9.2 That the introduction and follow-through of new and revised school programs which involve substantial changes in one or more of teachers' understandings, attitudes and pedagogical practices be routinely accompanied by a sequence of inservice activities;

R 9.3 That self-study kits be routinely prepared and made available as supplements to, or substitutes for, the inservice activities sequences noted in R 9.2;

R 9.4 That multi-media kits which include displays of relevant classroom applications be routinely prepared for use in group inservice sequences or self-study arrangements;

R 9.5 That relevant information be solicited from the field, selected and developed centrally and filed in appropriate data bases for access using school micro computers.

SCHOOL COUNSELLORS' SUGGESTIONS ABOUT SPECIAL EDUCATION SUPPORT DOCUMENTS

A survey of users' perceptions of special education support documents developed by Alberta Education was completed by the Education Response Centre in September 1988. The survey differed from the one reported in the previous sections of this report. Instead of support materials for programs for **typical** and **mainstream** pupils the survey queried users about publications concerning school and life experience of **atypical** pupils (gifted or handicapped) and all pupils in need of counselling, in crisis situations or requiring assistance in academic or career planning. Those surveyed about special education and guidance publications by the Alberta Education Response Centre (ERC) were 200 teachers who belonged to the Alberta Teachers Association Special Education Specialist Council, 200 regular education teachers, central office personnel in school systems (91) and Alberta Education Regional Office Special Education Consultants (7). The mailed questionnaire used in surveying these groups is included in Appendix B. Special Education personnel were excluded from the present survey because of their involvement in the ERC one.

Since school counsellors were not included in the groups established for the Education Response Centre (ERC) survey described above, it was decided to include them in the one reported here. Accordingly, the same questionnaire as the ERC developed was used, this time as an interview schedule for use with counsellors who happened to be employed at the schools selected for the current survey. In all, twenty-five counsellors responded who were attached to the elementary, junior high and senior high schools selected. The following are tabulations and text describing how useful and relevant for their work they find the special education support documents provided by Alberta Education. Their suggestions for improving the ones they find useful are reported as well.

COUNSELLORS' USE OF SPECIAL EDUCATION SUPPORT DOCUMENTS DEVELOPED BY ALBERTA EDUCATION

Table 36 displays the 21 publications used to structure the 1988 ERC survey. Many of the documents do not pertain directly to the work of school counsellors and this is obvious from their reports about frequency of use and relevancy to the work of counsellors. Except for documents categorized as General in Table 36 and entitled **Organizing an Alberta Career Day** the support publications are not used frequently by counsellors. Others used occasionally

Table 36 Counsellors' Use of Special Education Support Documents Developed by Alberta Education.

Documents	Use of This Document (percentage of counsellors)			Relevance in Your Work (Percentage of Counsellors)										Average Relevance Ratings		Rank Order by Total Use
	Often	Some-times	Never	1 Not at all	2	3	4	5	6	7	8	9	10 Very	For Those Reporting Use	For All Counsellors	
GENERAL																
Suicide: Prevention and Coping -- A Manual for Teachers, Counsellors and Administrators (1987)	20	44	36				4		4	16	4	12	20	8.2	4.9	2.5
Understanding Depression and Suicide (Student Booklet) (1987)	20	40	40				4		4	12	12	4	20	8.2	4.2	4.5
Review of Issues in Intelligence Test Use in Alberta Schools (1986)		36	64		4	8		4	4	8	4			5.1	1.6	8
Job Search Information Guide (1986)	32	32	36				4	4	16	4	8	20	8	7.6	4.8	2.5
Career Development Services for Alberta Students (1984)	20	28	52		4		4	8		12	8	4	12	7.0	3.7	6.5
Guidance and Counselling Services in Alberta School (1984)	28	32	40			4		8	8	8	8	12	8	7.3	4.1	4.5
SPECIFIC																
Program Adequacy in Special Education (1987)		4	96					4						4.0	0.2	17.5
Special Education Manual (1987)	4	20	76	4	8			8			4			3.5	0.8	11.5
Organizing an Alberta Career Day (1986)	20	48	32				4	4	8	4	16	12	12	8.1	5.2	1
Behaviour Disorders in Schools - A Practical Guide (1986)	4	44	52				4		8	8	4	8	12	7.6	3.4	6.5
Educating Gifted and Talented Students in Alberta: A Resource Manual for Teachers (1986)	8	24	68		4		8	8	4				4	5.1	1.4	9.5
Learning Disabilities -- A Resource Manual for Teachers (1986)	12	20	68				8			8	4		12	7.5	2.4	9.5
Career Development for Hearing Impaired Students (1986)			100											NR		20.5

Table 36 Cont'd.

Documents	Use of This Document (percentage of counsellors)			Relevance in Your Work (Percentage of Counsellors)										Average Relevance Ratings		Rank Order by Total Use
	Often	Some-times	Never	1 Not at all	2	3	4	5	6	7	8	9	10 Very	For Those Reporting Use	For All Counsellors	
Counselling for Hearing Impaired Students (1982)			100											NR		20.5
Special Education Handbook (1982)	4	20	76		4	8			4	8				4.7	1.1	11.5
The Educable Mentally Handicapped in the Regular Classroom (1982)	4	8	88					4						5.0	0.2	13
The Trainable Mentally Handicapped in the Regular Classroom (1982)		4	96					4						5.0	0.2	17.5
The Hearing Impaired Student in the Regular Classroom (1982)		4	96									4		9.0	0.4	17.5
The Visually Impaired Student in the Regular Classroom (1982)		4	96								4			8.0	0.3	17.5
The Physically/Mentally Handicapped Student in the Regular Classroom (1982)		8	92					4		4				5.5	0.4	14.5
Integration of Dependent Handicap classes into Regular Schools (1982)		8	92					8						5.0	0.4	14.5

are, in order: manuals for Behaviour Disorders, Educating Gifted and Talented, and Learning Disabilities; The Special Education Handbook and the Special Education Manual. Since the remaining publications are for support for very low incidence handicapping conditions which apparently very few counsellors are involved with, the responses in Table 36 show little or no use or relevancy for the work of counsellors.

The next section lists comments made by school counsellors about specific documents from the list in Table 36.

COUNSELLORS' COMMENTS ON SPECIFIC DOCUMENTS AND SUGGESTIONS FOR CHANGES

SUICIDE: PREVENTION AND COPING - A MANUAL FOR TEACHERS, COUNSELLORS AND ADMINISTRATORS (1987)

- Very well done; excellent (5 mentions).
- Very good resource used with Health 9 and peer support team.
- Resource material from Social Service Centre (Calgary) very useful as supplementary material.
- Excellent overview but must find specifics elsewhere.
- I would appreciate being helped to set up a program on grade 9 Health and PL Skills and in CALM 20.
- Who to contact for inservice would be useful information.

UNDERSTANDING DEPRESSION AND SUICIDE -- STUDENT BOOKLET (1986)

- Good format, succinct, well written (5 mentions).
- Good summary for students; statistics should be updated.

REVIEW OF ISSUES IN INTELLIGENCE TEST USE IN ALBERTA (1986)

- Others have responsibilities in this area.
- Teachers tend to pigeon-hole students; therefore intelligence scores best kept quiet.
- Rights and responsibilities and students' MOTIVATION are far more important issues.
- Not needed personally since itinerant psychologist does the testing.

- Bibliography at the back useful. Useful reminders contained throughout.

JOB SEARCH INFORMATION GUIDE (1980)

- Needs to be adapted for junior high to be used here. Interest survey instruments useful.
- Needs updating (3 mentions).
- Sections which become dated could be computerized to facilitate updating.

CAREER DEVELOPMENT SERVICES FOR ALBERTA STUDENTS (1984)

- Needs to be adapted for junior high to be used here.
- Survey of interest inventories useful.

GUIDANCE AND COUNSELLING SERVICES IN ALBERTA SCHOOLS (1984)

- Doesn't address elementary school guidance.
- Should include information about dealing with child abuse.
- Stresses theory and therefore not related to daily practice.
- Need specific recommendations about staffing and staff numbers.
- Need to make a distinction between Health and CALM curricula and group counselling.
- Designed more for senior high school counsellors who are full-time.
- Excellent document.
- Student surveys useful.
- Requires updating.
- Listing of potential pitfalls would be useful.

PROGRAM ADEQUACY IN SPECIAL EDUCATION (1987)

- Letters for parents useful.

SPECIAL EDUCATION MANUAL (1987)

- References and bibliography should be updated.

ORGANIZING AN ALBERTA CAREER DAY

- Practical; a good resource (4 mentions).
- Not too relevant for junior high.
- New format is excellent.

BEHAVIOUR DISORDERS IN SCHOOLS -- A PRACTICAL GUIDE TO IDENTIFICATION, ASSESSMENT AND CORRECTION (1986)

- Excellent (3 mentions).
- I reproduce excerpts for teachers' use.
- Not strong on identification; very good otherwise.
- We append checklists for quick use (to avoid wading through reams of material).

THE TRAINABLE MENTALLY HANDICAPPED STUDENT IN THE REGULAR CLASSROOM

- The TMH kids have improved noticeably here.
- Mainstream kids have cooperated and benefited.

LEARNING DISABILITIES MANUAL -- A RESOURCE MANUAL FOR TEACHERS (1986)

- Thumb-nail overviews and checklists would improve its usefulness.

INTEGRATION OF DEPENDENT HANDICAP CLASSES IN REGULAR SCHOOLS (1982)

- Integration has been successful here.

Future Document Development: Suggestions by Counsellors

The twenty five counsellors were then asked "What documents would you like to see produced to assist you?" Their replies are enumerated below.

FUTURE NEEDS

- Manual on bereavement and death and grieving (5 mentions).
- After suicide - guidelines on how to deal with media, parents, grandparents and students (3 mentions).
- How to Study (for students) -- time management, note-taking, setting priorities, etc. (2 mentions). (Apply the research studies from elsewhere)
- A useful document on learning style preferences and a valid measurement instrument.
- Explanations of testing terms and terms needed for interpreting test scores e.g., percentiles, standard scores, etc.
- School climate and school climate measures.
- Re-do the guide for EMH: i.e., whole language and integrating language approaches, language experience, etc.
- Include ordering information with references and resources suggested.
- List resources and resource people when applicable.
- Need CAI computer coursware for EMH children.
- A document focussing on self-esteem -- how to develop and maintain it.
- Recommend more elementary counsellors.
- Pupil peer support program materials -- especially Division 2 and Junior High.
- Lists of resource people are more useful than materials.
- Overall publication outlining postsecondary programs and differentiating between them.
- New diploma programs and their tie-in with the demands of industry and the world of work.
- Students in Crises -- need printed help and flow-charts for use by non-counsellors to guide in seeking help from Social Services and elsewhere.
- Community resource reference re: sources of support and agencies.
- Counsellors' role with classroom teachers (3 mentions).
- Peer tutoring.
- As a beginning counsellor I would like to see pamphlets on suicide prevention, divorce and separation of parents, teenage sex and pregnancy.
- Need an easily accessed video library with specific information on career fields.
- Continue the **Job Search Information Guide** -- it is very useful.
- Suicide prevention (signs, symptoms, interventions, etc.) (3 mentions).
- Helping students deal with abortion.
- Videotapes on how to conference with teachers and parents.
- Videotapes demonstrating group counselling.
- Need to know agencies, persons, and resources available for specific problems e.g., severe emotional disturbances (3 mentions).

- Personality inventories (for pupils to answer) in a format for duplication.
- Research and signs re: the attention - deficit child.
- Guidelines about the emotionally abused.
- Guides re: autistic, hyperactive, emotionally disturbed, and behaviourally disordered children.
- Summaries, annotations helpful for the busy professional who has multiple responsibilities.
- Need inservice kits with A/V components.
- Need conference call facilities and networks.
- Distance Education technology needs to be used.
- More and better inservice about counselling for administrators, trustees, and regular teachers.
- Transfer guides for inter-provincial student transfers very good and definitely needed.
- Lists of private schools and their categories to assist in placing and transferring students.
- Need survey of counsellors at secondary level to complete registry of names, addresses, phone numbers.
- Guidelines for use re: primary and elementary pupils concerning communicating confidences about child abuse.
- Questionnaire (interview) forms for use in check listing developmental stages, behaviour levels and patterns, etc. (Vineland Social Maturity Scale used for parents)
- Information on projective techniques and other programs e.g., **Care Kit** (puppetry).
- Slides and videotapes about sibling rivalry, step-child in the family (student and/or teachers as viewers).
- Listings about journals and magazines for primary and elementary counsellors.
- Intervention techniques without overstepping jurisdictional and ethical limitations.
- Using **Insights** career information data base since **Choices is expensive** (Price is going down because of demand by CALM 20 classes).

FORMATS SUGGESTED BY COUNSELLORS FOR FUTURE DOCUMENTS

'In what format would future documents be most helpful?" was the last question posed for counsellors. Their responses are displayed in Table 37. The most frequent recommendation relative to format was for 3-ring binders which would accommodate inserts and facilitate updating. Videotapes for use by counsellors, or students, or both were also recommended by a substantial minority (32 percent). The remaining suggestions were submitted by one, two or three counsellors.

Table 37 Formats Suggested by Counsellors for Future Documents

Format	Percentage of Counsellors
3-ring Binders to accommodate inserts	40
Videotapes for use by counsellors and/or students	32
Soft covers	12
AV Multi-media	12
Computerized access	8
Distance Education Technologies (including conference calls)	12
Little pamphlets (for student materials)	8
Summaries, annotations	4
Printed materials	4
Well indexed materials with ordering information included	8
I don't like binders; anything but	4

INVESTIGATORS' POSTSCRIPT ON ROLES FOR THE COUNSELLOR

In several of the junior and senior high schools selected for this survey it was reported that a counsellor had assumed a strong leadership and consultative role in providing support to teachers of 1-6 Health, 7-9 Health and Personal Life Skills, and CALM 20. In one large junior high school a counsellor had prepared lessons for the junior high staff of eight teachers responsible for Junior High Health and Personal Life Skills. The teachers appreciated and used these teaching units, particularly those assigned the course for the first time. It was obvious that, over a period of time, a strong cadre of teachers for 7-9 Health and PL Skills would be developed in this school as a consequence of this support and the meetings and communications among peers that were taking place. By working with teachers in this and other schools counsellors were exploiting the opportunities provided by the introduction of the Health programs and CALM 20 to achieve some of their goals in meeting the needs of all students, not simply the atypical or those seeking counselling.

SCHOOL COUNSELLORS' SUGGESTIONS ABOUT SPECIAL EDUCATION SUPPORT DOCUMENTS: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Twenty-five counsellors who were attached to the elementary, junior high and senior high schools selected for this survey were interviewed about how useful and relevant for their work they find the special education support documents provided by Alberta Education. They also were asked for suggestions for improving the ones they find useful.

The most frequently used Special Education support documents were those related to careers, job searching, suicide and depression, and the 1984 edition of Guidance and Counselling Services in Alberta Schools. These were also rated as most relevant for the work of counsellors. Several manuals for teachers were ranked next in frequency of use and relevance: Behaviour Disorders in Schools, Educating Gifted and Talented Students and Learning Disabilities. Special education support publications dealing with low incidence handicapping conditions were seldom used or rated as relevant to the work of the counsellors surveyed.

Comments on specific documents are enumerated in detail in the main report. Those pertaining to suicide received the most unsolicited commendations. Most suggestions for change were directed at the publication entitled Guidance and Counselling Services in Alberta Schools.

Future needs communicated by counsellors focussed on topics for support publications. Nearly seventy suggestions were made. Those mentioned by more than one counsellor included the following: manual on bereavement, death and grieving (5 mentions); after-suicide guidelines on how to deal with the media, parents, grandparents and students (3 mentions); how to study (for students) including time management, note taking, setting priorities, etc. (2 mentions); a manual and videotapes on the role of counsellors with classroom teachers (3 mentions); suicide prevention (signs, symptoms, interventions,etc.) (3 mentions); and agencies, persons, and resources available for specific problems e.g., severe emotional disturbance (3 mentions).

Formats suggested by counsellors for future documents included 3-ring binders (40 percent recommended this), videotape cassettes (32%), and, by 12 percent each -- soft covers, A/V multi-media and Distance Education technologies.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the data obtained from the interviews, generalizations from the research, and the experience of the study team it is concluded:

C 10.1 That data about the uses and relevancy of support publications support the inference that marked differences exist in counsellors' roles and responsibilities and those of special education teachers and consultants;

C 10.2 That much more of counsellors' time, interests and responsibilities are devoted to direct service to, and contact with, students than with teachers (counsellors tend to continue to defer to others on matters related to classroom teaching and learning);

C 10.3 That counsellors need and are generally appreciative of the support publications provided currently;

C 10.4 That counsellors, as a group, find applications of technology attractive and non-threatening; and

C 10.5 That some counsellors were unaware that some publications existed and that services such as the Response Line Service of the Alberta Education Response Centre were available.

Recommendations:

The survey team recommends:

R 10.1 That counsellors be invited to participate in any sequences of inservice workshops on topics included in the Health programs and CALM 20, and that they be included in mailing lists for any support documents distributed for these programs;

R 10.2 That counsellors be encouraged to assume leadership and consultative support roles, when appropriate, in CALM 20 and the personal life skills aspects of the Health programs and that they be provided support as required;

R 10.3 That Alberta Education personnel examine and reflect on the numerous suggestions from counsellors reported herein concerning support publications in general,and specific documents in particular, and recommend actions which appear appropriate and feasible;

R 10.4 That consideration be given to adding "school counsellor" and "special education teacher" as recipients to communications mailed to school principals concerning special education support documents and publications.

ECS TEACHERS' RATINGS AND COMMENTS ABOUT EARLY CHILDHOOD SERVICES PUBLICATIONS

Several constraints became evident when attempts were made during the school interviews to contact Early Childhood Services (ECS) teachers about support publications in their areas of responsibility. One factor that restricted numbers drastically was that many of the elementary schools selected for the survey had no ECS Centres attached. This, coupled with the reality that only twelve elementary schools had been contacted meant that the pool was quite small. The other constraint was the problem of numerous support publications available for ECS. During the early part of the survey four ECS teachers responded to the interview schedules in Appendix A with respect to a major publication in ECS -- Philosophy, Goals and Program Dimensions or another publication of their choice. Four ECS teachers responded in this fashion and their comments were reported earlier.

At this point the ratings and comments of three additional ECS teachers who each responded to about ten publications are reported. It was decided, belatedly, to survey the few remaining ECS teachers available about more publications using the format employed with the school counsellors. Since ECS teachers are provided with a multiplicity of support publications there was merit in shifting to this broad spectrum approach.

Table 38 displays the number of teachers from the trio of respondents who reported on frequency of use and relevancy (on a 1 to 10 scale) to their work of each of the eleven publications listed. In addition, all comments made by the group are recorded. Virtually all of the comments are either commendations or reports about how a particular document is used. Essentially none suggest changes or enhancements. There are too few respondents to warrant drawing conclusions.

During an early part of the survey a school administrator in a large elementary school communicated a strong plea for a single, comprehensive document (such as a teacher resource manual). This format, it was argued, would save numerous hours locally in drawing together from the multiplicity of sources the objectives, activities and resources which comprise an ECS program. This administrator had assembled such a document from what was described as "the hodge-podge of little booklets". Other suggestions by this individual followed the format in the interview schedule, i.e.,

- teaching strategies - alternative activities should be provided in quantity

Table 38 ECS Teachers' Ratings and Comments about Early Childhood Services Publications.

Publication	Use of this Document			Relevance in Your Work										Comments
	Often	Some-times	Never	1 not at all	2	3	4	5	6	7	8	9	10 very	
Philosophy Goals and Program Dimensions	2	1									1	1		Used with parents (2 mentions). Used intensively at university. Applicable to all grades. Dimension areas most useful. Goals used for planning.
Human Development: The Early Years		3					1			1				Used for alerting parents about developmental levels (2 mentions). Good background reminder about development stages (2 mentions).
Bridges to Learning		2	1				1				1			Made available to parents (2). Used at beginning of year and throughout to understand problems. Not aware of this publication.
How to Evaluate your ECS Program		1	1					1						Used for planning evaluation (inventories are used) and as a review prior to evaluation. Unaware of this publication.
ECS Learning Centre	1	1	1								1			Planning and setting up a Centre. Understanding purposes - generally and specifically. Timetabling. Scheduling. Not aware of this document.
Articulation Policy		2	1			1								Aware of but not used (2). Aware of duplicated pages. Requires school system decision to implement articulation. Largely a one-time review. Lacks specifics for easy local application.
Highlights		3				1			1					Useful for parents. Put out for display for parents. Useful for comparisons. Provides ideas for our Centre
ECS Physical Development		1	2											Not aware of this document (2). I use it a lot in the P.Ed. program.
ECS Advisory Manual		2	1				1							Not aware of this document (I use a locally prepared one). Useful to develop a school system one. Local one translates provincial notions for local applications.
Guidelines for ECS Language Program			1											Not aware of this publication.
Self-Evaluation		1									1			Shouid include self and parent involvement as well. (and Teacher Assistant also). For personal use at beginning and end of the year.
Totals	3	17	8			2	3	1	1	1	4	1		

Note: One of the three ECS respondents did not rate the document for relevance.

- individual differences -- place guidelines and suggestions about integrating the handicapped in the single document. Practical help is lacking for children with special needs.
- evaluating pupil progress -- provide numerous checklists about fine motor, gross motor, social and intrapersonal skills with a rough indication of the normative ranges. The foregoing should help in reviewing progress and planning/revising programs.

ECS PUBLICATIONS:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Three ECS teachers were interviewed about the set of support publications provided by Alberta Education. Except for **Philosophy, Goals and Program Dimensions** and the ECS **Learning Centre** (which were used frequently and considered quite relevant), the majority were used "sometimes" and were considered moderately relevant to the work of ECS teachers. The general satisfaction level was inferred to be good since there were no suggestions communicated about changes, additions or deletions. One administrator who was interviewed without use of this structured format voiced a strong plea for a single, comprehensive document such as a teacher resource manual to draw together the essential elements in the multiplicity of publications now provided.

CONCLUSIONS AND RECOMMENDATIONS

Since there were so few ECS teachers interviewed about any particular support publication conclusions do not seem warranted. Nonetheless comments received during the interviews could became the basis for the recommendation which follows.

It is recommended

R 11.1 That a mailed questionnaire survey of ECS Centres personnel be considered to solicit reactions and recommendations concerning Early Childhood Support publications and services.

INTER-ORGANIZATION RELATIONSHIPS AND COMMUNICATIONS

The following questions outlined in the Terms of Reference are addressed in this section:

3. What relationships and communications between the Curriculum Support Branch, other Department Branches, school jurisdictions and relevant interest groups are needed to enhance curriculum delivery/ implementation processes?

3(a) What information collected by the Student Evaluation and Records Branch is relevant and how is it relevant to curriculum delivery and implementation processes?

3(b) What other information sources (i.e., Annual Reports) have relevance to judging the effectiveness of curriculum delivery/implementation processes?

3(c) What factors influence the effectiveness of the relationships between the Minister and school jurisdictions in support of curriculum delivery and implementation processes?

The data base for this portion of the survey was obtained by the following means:

1) Mainly by telephone interviews of centrally and regionally located managers in Alberta Education, and educators in central offices of school systems and the Alberta Teachers' Association,

2) Selecting appropriate generalizations from the research literature, and

3) Applying the experience and judgments of the survey team members.

EFFICACY OF SUPPORT DOCUMENTS AND RESOURCES

Method

Responses to the effectiveness and efficiency of support documents and resources, either by way of changes in, or maintenance of, current features, are the focus of this part of the study. Respondents did not, and in retrospect should not have been expected to, separate change or maintenance proposals into effectiveness and efficiency categories. The two variables are so interdependent that separation becomes an arbitrary decision and is less likely in isolation to maximize the efficacy of documents and resources. Efficacy is defined as the ' power to produce a desired or intended result '. Consequently the findings in this section are combined in a single listing.

Findings

Efficacy, according to the respondents, would be improved by the following:

- Extension of objectives (understandable and measurable) into practical applications in the classroom. (Eg. sample teaching units) 54%
- Clarification as to the use of the Program of Studies as the primary source with respect to coverage and its relationship to support documents and resources. (Eg. Clear separation between legal requirements and discretionary elements) 31%
- Simplification and integration of documents by:
  - Eliminating esoteric jargon and using parallel terms across subjects (Very necessary for inexperienced or non-expertise teachers), and 24%
  - Common formating (Eg. Elementary Handbook), and 23%
  - Continued utilization of generic documents along the nature of the Domains' series but on inquiry, evaluation, integration etc., and 19%
  - Color coding of common sections, and 12%
  - Using ' sightlines ' for handling the monstrous LRDC catalogue and by simplifying the order form. 4%
- Using modes or formats which enable quick overviews by:
  - Providing a simple condensed visual representation of coverage by means of video graphics, and 42%
  - Highlighting important elements of the program but not at the expense of other objectives, and 19%
  - Executive summary for use by parents, board members, jurisdictional and school administrators, and, 12%
  - Utilizing point form wherever feasible to highlight essence of coverage or process orientations. 4%

- Integration of concepts, skills and attitudes across subjects by means of models. 19%
- Increase assistance in areas of continuing need by:
  - Providing sample questions for measuring student progress, especially in skill and attitude domains where other test sources are not available, and 19%
  - Continuing the binder format thus allowing for updating, deletions and additions (Eg. Curriculum aids for particularly difficult program elements, using a magazine style), and 12%
  - Providing long and short range plans, for adaptation by teachers. 4%

- Sufficient advance notice to permit adequate budgeting and inservicing by:
  - Early receipt of support documents, and 19%
  - Early, clear identification of primary resources 12%

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

On the basis of data obtained from the interviews, generalizations from the research, and the judgments of the study team we conclude:

C 12.1 That the relationship between the Program of Studies and support documents and resources, and the translation of both into practical classroom plans and applications, continues as a primary need.

C 12.2 That integration of concepts, skills and attitudes, within and among subjects, especially at the elementary level, is troublesome at the classroom level, a condition recognized by supervisory and administrative personnel in jurisdictions.

C 12.3 That efficacy features for quick overviews; parallel terms, common formating, binder formating and color coding of support documents; and generic documents dealing with common strategies across subjects, are especially needed by teachers. Emergence of many of these features in recent support documents has positively whetted the appetites of jurisdictional educators, including supervisory and administrative personnel.

C 12.4 That efficacy of support documents and resources is diminished when adequate time for budgeting and inservicing is not provided.

It is recommended:

R 12.1 That Alberta Education universalize the practice of displaying the sequences flowing through goals; objectives; concepts, skills and attitudes; teaching activities; key references and evaluation. (CALM 20, Teacher Resource Manual) (See R 5.2)

R 12.2 That Alberta Education provide sample lessons, and short and long range plans, as models for teacher use, especially for objectives not easily understood. (See R 5.1)

R 12.3 That features, as in C 12.3 above, which support easy location of information and classroom application, be made standard fare for teacher resource manuals. (See R 4.3; R 5.3)

R 12.4 That Alberta Education include in each teacher resource manual, a model or models displaying the integration of significant concepts, skills and attitudes, within and among subjects.

R 12.5 That Alberta Education postpone implementation dates when advance availability of support documents and resources does not permit adequate inservicing. (See R 1.3)

INFORMATION: NEEDS AND SOURCES

Method

Respondents were given an opportunity to identify helpful information currently provided by the Student Evaluation and Records Branch. They were also asked to identify additional information which it would be helpful to have the Branch provide. Finally, respondents indicated other information which it was believed would be helpful. Suggestions for refinements or extensions with regard to some current sources of information were also made.

Findings

A caveat implicitly or explicitly permeated comments about information currently provided by the Branch. Overtones of the same caveat extended to responses concerning additional information which the Branch might provide. The caveat was that the emphasis on the current type of evaluation should not increase.

The responses regarding current information were:

- More interpretive information to accompany the analysis of achievement results was needed, especially in relating the results to the picture of the whole child. There should be clear identification of the limitations of the current evaluation practices. In addition, socio-economic data with regard to the school should be considered. Such interpretive information could assist in minimizing the abusive interpretation which is now occurring from time to time. 35%
- Diagnostic reading assistance is particularly helpful in determining program and professional development needs. 15%

- Provisions for computerizing jurisdictional and regional data results, also those of the ACS student group, would assist in interpretation and consequent action taken by individuals at each of these levels. 8%

Additional helpful information which the Branch might provide was:

- Assistance in assessing attitudes is sorely needed, especially in a core subject like CALM 20, but in other relevant subject areas as well. 19%
- Provincial enrolment and performance trends, including subject areas not measured by diploma or achievement tests, drop-out patterns per subject and male/female ratios in subject areas could be helpful in assessing academic counselling practices in schools. 12%
- Tracing students into post-secondary study and the work place would provide a useful perspective with regard to the impact of the diploma examinations. 12%
- A four-year cycle in achievement testing is inadequate for determining interim corrective measures which may be advisable. 8%
- Using a static mean for reporting results may not be reflective of a changing population. Perhaps the range of student performance could be added or substituted as the basis for reporting. 4%

Additional information sources commented upon by the interviewees were:

- Annual provincial analyses by regional office consultants, subject by subject, and based on school/program evaluations should be prepared for provincial distribution. Criteria (Eg. Science Learning Situation Inventory) used for the evaluation should be part of the report and, where applicable, relationships to provincial examination results should be included. 50%
- Place jurisdictional program evaluations anonymously on a data base for a computer system for accessing across the province. 35%
- Program evaluations should take precedence over school or teacher evaluations. 12%
- The regulatory/monitoring responsibility of ROE'S consultants is limiting their participation in design activities and influencing their credibility when involved in delivery and implementation processes. 12%
- School Jurisdiction Annual report was cited by one respondent as useful, but at best of secondary assistance. 4%

Additional Comments

This section concludes with comments, by one or two interviewees, which do not properly fit in other sections.

- AE should take a leading role in informing the public, in other words, marketing program changes.
- Earmarking of resources and inservice funds for implementation in basic programs is important.
- Specific tasks within the implementation process might be contracted out to the ATA.
- Implementation is primarily a jurisdictional responsibility, but access to consultative services is critical.
- Concerted effort should be made to encourage the fullest participation of Indian Reserves in the delivery, implementation and evaluation processes.
- With provincial interest in attitudes and ethics perhaps more assistance should be given to systems promoting Religious Education.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of data obtained from the interviews and the judgments of the study team it is concluded:

C 13.1 That performance results of students, assessed provincially, reported and interpreted in the context of total child development and the surrounding conditions impinging on that development, enable balanced interpretations of results.

C 13.2 That assistance in measuring student performance, in areas not currently assessed provincially, is a significant need.

C 13.3 That assembly of performance results into jurisdictional and regional diagnostic data bases enhances interpretation of results at the school level.

C 13.4 That coordination and aggregation of program evaluations, conducted jurisdictionally and provincially, broadens the assessment base for interpreting results.

It is recommended:

R 13.1 That standards, as part of the data base for interpreting individual and group performance, be established to reflect significant intervening variables, such as socio/economic status.

R 13.2 That Alberta Education prepare, at the earliest possible date, support documents and resources which will assist classroom teachers in assessing student performance in skills and attitudes not assessed provincially. (See R 7.1; 7.2; 7.3)

R 13.3 That Alberta Education give consideration, as soon as feasible, to adapting for regional diagnosis, the model currently being piloted for developing a diagnostic base for jurisdictions. To assist in interpreting provincal test results.

R 13.4	That Alberta Education, in cooperation with jurisdictions, develop a system for standardizing criteria used in program evaluations done by jurisdictions and regional offices, and assist in aggregating results of these evaluations into a provincial summary.

COMMUNICATION CHANNELS

Method

The telephone interviewees were next invited to identify formal and informal communication channels currently in use, the function each plays and the frequency of use with respect to enhancement of curriculum delivery and implementation.

The channels internal to Alberta Education (AE) , that is central/regional, and external to AE, that is departmental/jurisdictional, were explored. The internal set of channels obviously were responded to by AE employees only. Externally, the responses were those of jurisdictional personnel and included the respresentatives of the ATA.

The respective results are recorded in Tables 39 and 40. It is important to remind the reader of the qualitative rather than quantitative orientation of this study. The interview called for the division of 26 respondents into internal and external groups. Consequently the total respondents in each group is small and the number responding to any one communication channel is even smaller. Also the provision for open-ended responses further reduces the significance of statistical relevance. However, as previously stated in this study, this statistical reality should not detract from serious consideration of the views expressed, if, and when, changes to communication channels are under review. The responses can become the basis for further exploration and analysis, and, when appropriate, changes can be developed and implemented.

Interviewees were also asked to identify changes in timing, packaging and nature of feedback which would improve communications.

Finally they were asked to identify communication channels to be explored.

Findings

The responses with respect to formal internal channels were:

- Committee representation and regularized update communications (Eg.In Focus) ranked 1 and 2, respectively. Committee membership provided primary opportunity for an advisory function, both served as information sources.

Table 39 Alberta Education Central/Regional Communication Channels: Ranked According to Frequency of Use

Factors	Function	Weighted Total	*Frequency Ranking
Formal			
Committee Representation	Advising	16	1
Update Communications (e.g., In Focus, Education Today)	Information	15	2
C. Support Branch Workshops	Information Clarification Consultation	9	3
Interbranch Review/Liaison Meetings	Clarification Consultation	7	4
ROE's Liaison Officer	Information Advising	5	5
Project Managers	Consultation Advising	4	6
Sharing of Minutes	Information	4	6
School/Program Evaluations	Consultation Advising	4	6
Administrative Exchanges	Information Clarification	2	7
Informal			
Initiated Telephone or Personal Exchange	Information Clarification	39	1
Incidental Personal Exchanges (e.g., conventions, conferences, other events)	Information Consultation	20	2
Memo	Confirmation	6	3

*Note: Frequency of use ratings were based on a scale of 1 to 5, least to most frequent. Numerical weights corresponding to the frequency scale were awarded in calculating weighted totals.

- Curriculum Support workshops and interbranch review and liaison committees were next in frequency of use. These two channels served informative, clarifying and consultative functions.

- In a few cases regional consultants used their roles as Liaison Officers to receive information and extend advice.

- Project manager appointments, sharing of minutes and school/program evaluations ranked sixth in frequency of use. Appointments and evaluations stressed advisory, consultative and informative functions. Sharing of minutes was primarily informative.

- Least used of the formal channels were the administrative exchanges which, when used, were informative and clarifying in function.

Informal communication channels for AE employees were as follows:

- Most use was made of self-initiated telphone or other personal exchanges. These contacts were to obtain or clarify information of joint interest to both parties.

- Incidental exchanges during joint attendance at conferences, conventions, seminars etc. were used half as frequently as initiated exchanges. Informing and consulting characterized these exchanges.

- Of least frequency was the written communication, memo or letter. For the most part this channel was used for confirmation purposes.

Jurisdictional and ATA personnel understandably thought of communication channels with AE , whether central or regional, as being one and the same thing. The perceptions of non-departmental personnel regarding formal channels, Table 40, were:

- Supervisor/Administrator meetings, between jurisdictional and departmental personnel, along with committee membership were used most frequently. The former presented opportunities for being informed and for consultation. Committee participation was viewed as an advisory opportunity.

- Update communication dealing with long range plans and/or current developments, along with participation by AE employees in the Urban Supervisors' meetings, were used with almost equal frequency. These provided information and consultation opportunities.

- Communication channels of Administrators (chiefly senior administrators) served purposes of information and consultation. Of relatively equal frequency was the Liaison Officer channel, which afforded both information and consultation exchanges.

- Departmental workshops were mentioned by only one person. Consequently this channel for information is minimal.

Table 40 Alberta Education/School Jurisdiction Communication Channels: Ranked According to Frequency of Use

Channels	Function	Weighted Total	*Frequency Rankings
Formal			
Supervisors/Administrators Meetings	Information Consultation	28	1
Committee Representation	Advising	25	2
Update Communications (e.g., long-range plans, current developments)	Information	14	3
Jurisdiction/Department Exchanges (e.g., Urban Supervisors)	Information Consultation	11	4
Administrative Meetings	Information Clarification	10	5
ROE's Liaison Officer	Information Consultation	8	6
Department Workshops	Information	2	7
Informal			
Initiated Telephone or Personal Exchange	Consultation Advising	29	1
Incidental Personal Exchanges (e.g., conventions, conferences, other events)	Information Consultation	12	2
Memo (letter)	Confirmation	4	3
Publishers' visits	Information	3	4

***Note:** Frequency of use ratings were based on a scale of 1 to 5, least to most frequent. Numerical weights corresponding to the frequency scale were awarded in calculating weighted totals.

Use of the informal jurisdictional/departmental channels are similar in pattern to the channels internal to AE. Specifically the findings showed:

- Initiated exchanges by telephone or other personal contact, for purposes of consulting or extending advice, were used most frequently.
- Incidental personal exchanges at conventions, conferences, seminars etc. were used next frequently for purposes of information and consultation.
- Written communication, generally letter, was used for confirmation but much less frequently.
- Formal and informal contacts with one jurisdictional respondent were so non-existent that the individual used publisher visits to obtain the most current information.

Communication Improvements

Timing

Responses to changes which would improve communications focused more on the overall process of delivery and implementation than upon communication per se. This was especially true for the matter of timing. The first finding which applies to the spectrum of development, delivery and implementation is probably the most significant finding in this section of the study. The findings relative to timing were:

- Coordination between jurisdictions and AE with regard to long and short range plans for curriculum change, teacher renewal and personnel exchanges is imperative. 65%
- More lead time for feedback in both the development and implementation processes is essential. 31%
- Number and frequency of program changes must be undertaken in a reasonable time frame. The major or minor nature of the changes is a key factor. 19%
- Timing and amount of formal interbranch exchanges during development, delivery and implementation is critical. 4%

Packaging

Respondents said this about packaging:

- Integration of resources and services of several branches (including regional offices) relating to a curricular change is required.(Eg. Unavailability of primary resources, Math. 10, Math. 1X) 27%

- Attractiveness of the individual items and of the package itself is important. 12%
- Emphasis upon immediate utility of at least some items in the package. (Eg. Handouts for classroom use, visuals for Elementary Art) 8%

Feedback

Following are the responses ragarding the nature of feedback:

- Continuous review after approval and implementation of a program, including such things as teacher check lists for self-evaluation. 31%
- Provision of implementation progress in other jurisdictions by means of anonymous program evaluations as a data base on a computer system. 23%
- Face to face feedback, as prompt as circumstances permit, is essential in development, delivery and implementation stages. 13%
- Attendance of AE personnel at conventions, conferences, specialist councils' or similar events, with or without program responsibility, is valuable for incidental communication 12%
- Extension of feedback to individuals outside committee and pilot assignments at formative stages of design or support developments.(Eg. Colloquia, specialist or non-specialist in the subject; written evaluations) 12%
- Roles, Goals and Achievements, an information item of Curriculum Support, should be emulated in some form by other branches. 4%

Channels to Be Explored

Suggestions with respect to unexplored channels for communication focused on technological innovations. However, 27 percent of the respondents stressed that face-to-face exchanges should be the primary mode, with other modes having a complementary status. Recognition was given to the fact that substitution of the preferred face-to-face contact for technoglogical contact would be required to minimize cost but maximize accessibility.

Findings

Other findings were:

- Computer networking such as ASPEN, with sensitivity to computer literacy and trust levels, could be an invaluable tool for accessible and personalized inservicing. Identification of resource personnel could be part of the data base. 69%
- Updating of new developments on electronic bulletin boards could be a source of indentifying inservice needs. A fax complement is needed. 27%

- Extend the response centre concept as a mechanism for continuous feedback and source of personalized assistance in meeting implementation needs. 16%
- Distance Education, done in concert with Advanced Education, could minimize cost and increase accessibility of programming to meet professional development needs. 15%
- ROE'S Liaison Officers, designated as continuous jurisdictional contacts, could be utilized, especially for informational purposes. 4%

CONCLUSIONS AND RECOMMENDATIONS

On the basis of data from the interviews and the judgments of the research team it is concluded:

C 14.1 That internally, AE employees are more dependent upon informal channels, initiated or incidental personal contacts. Formal channels, by necessity, offer participation to limited numbers, hence the greater dependency on informal contacts.

C 14.2 That external contacts with AE utilize formal and informal channels equally. Greater numbers of non-departmental persons can be and are involved in formal channels. The greater exposure to formal channels does not diminish the need for informal personal contacts.

C 14.3 That adequate time for conducting implementation takes precedence over the adequacy or timing of communications.

C 14.4 That receiving at once the full complement of the implementation package, resources and services, is of greater importance than packaging features.

C 14.5 That continuous prompt feedback, reflective of jurisdictional and provincial perspectives, is indispensable to successful development, delivery and implementation.

C 14.6 That the indispensable feedback cited in 14.5 would be maximized by electronic, two-way transmission of information.

It is recommended:

R 14.1 That AE assure that personnel, whose jurisdictional and provincial duties have a direct relationship to a program change, receive pertinent progress communications regarding that change.

R 14.2 That AE establish, or evaluate if in place, a structure and process which will coordinate the assembly of the implementation package, resources and services, so that the entire package becomes available at a time which permits adequate budgeting and inservicing.

R 14.3 That a review of current applications of computer and distance education technologies be made to determine the potential as a significant complement in the delivery and implementation processes. (See R 2.3)

FACTORS AFFECTING DELIVERY AND IMPLEMENTATION

Methods and Respondents

Interviewees at provincial, regional and jurisdictional levels were asked to give importance ratings to factors, Table 41, concerning support measures, communication dimensions and program characteristics as to their effect upon delivery and implementation.For extended definition of the factors the reader may refer to Appendix A. Further definition and contextual significance is available in Harvey Research (1988, pp. 5-12; 36-47).

The rating was done on a scale of 1 to 5, from the least to the most important. Frequency counts in each category of the rating scale were made. Numerical weights corresponding to the value of the rating category were assigned. A total weight (sum of frequency x value in each rating category) was calculated for each factor. The Weighted Total was the basis for the Importance Ranking recorded.

Also, to enable some general as well as specific observations to be made, a grouped listing of factors, in descending order of importance in each group, follows.

Support

Inservice training
Resource support (time and materials)
School administration support
Teacher participation in curriculum development
School Jurisdiction's (SJ's) commitment to change process
School board support
Innovativeness of the SJ
Implementation costs
Community Support
Peer status in implementation

Communication

Appropriateness of communication feedback
Curriculum planners' awareness of implementation potential
Working through opinion leaders
Personal communication within SJ
AE effort in contacting SJ clients
AE staff orientation to SJ

Program

Program Compatibility with existing values
Relative advantage of the program
Complexity of program
Program compatibility with SJ needs
Extent of trial experimentation with program
Amount of local modification or reinvention

Respondents were also given opportunity to provide additional factors they considered important in the delivery and implementation processes. Only two of these additional factors appear in Table 41. Others were subsets of the common factors used in the study or were pertinent to other sections.

Further to Table 1, interviewees at the jurisdictional level were curriculum supervisors, deputy superintendents or superintendents who had curricular responsibility for a jurisdiction participating in the study. With considerations for geographic and urban/rural representation they were recommended by their supervisors, or in the case of superintendents, self-appointed. Representatives of the central branches of Alberta Education (AE), including the Alberta Correspondence School (ACS), were chosen by branch directors. They represented positions with managerial or supervisory responsibilities at branch or program levels within the branch. Regional office consultants represented a subject of focus in the study and were distributed across the regions, with at least one consultant from each regional office. The professional association (ATA) was represented by a staff officer with primary responsibility for curriculum development and implementation. Four specialist council members, either current or past presidents in Fine Arts, Language Arts, Mathematics, and Religion and Ethics Councils, were chosen by the ATA. Representation from the last Council named was desirable because of the study's inclusion of CALM 20. The ATA representation provided input which was classroom-based but with a provincial perspective.

With regard to delivery, respondents were asked to identify which methods of delivery were the most and the least helpful. Percentages with respect to each response are reported.

Findings

In reporting on the general groupings of factors it is found that:

- The seven factors in the top five rankings include four support and two program items, respectively, and one communication item.
- In the next five Importance Rankings nine factors, of which four are support, three communication and two program, are involved.

Table 41 Factors Affecting Curriculum Delivery and Implementation: Ranked in Importance

Factors	Weighted Total	*Importance Ranking
Inservice Training	120	1
Program compatibility with existing values	117	2
Resource support (time and materials)	115	3
Relative advantage of program	113	4
Appropriateness of communication feedback	113	4
School administration support	111	5
Teacher participation in curriculum development	111	5
Curriculum planners' awareness of implementation potential	110	6
School jurisdiction (SJ) commitment to change process	109	7
School board support	103	8
Complexity of program	103	8
Working through opinion leaders	102	9
Personal communication within SJ	102	9
Alberta Education (AE) effort in contacting SJ clients	102	9
Innovativeness of SJ	95	10
Implementation costs	95	10
Program compatibility with SJ needs	93	11
AE staff orientation to SJ	92	12
Extent of trial experimentation with program	88	13
Community support	87	14
Extent of local modification or reinvention	86	15
Peer status in implementation	61	16
Additional Factors	**Frequency of Mentions**	
Political interventions	2	
Provincial status of program (core, evaluated)	2	

*Note: Importance rankings were based on a scale of 1 to 5, least to most importance. Numerical weights corresponding to the importance scale were awarded in calculating weighted totals.

- The third group of five rankings, includes five factors, three program and one each in communication and support.
- The final support factor, peer status in implementation, may be viewed as relatively unimportant as an influential factor.

Ungrouped, the findings with respect to the importance of factors influencing delivery and implementation were:

- Inservice training, program compatibility with existing values, and resource support in the form of time and materials are the three most important factors, respectively.
- Relative advantage of the program and appropriateness of communication feedback during implementation were considered fourth in importance.
- School administration support and teacher participation in curriculum development were fifth in importance.
- Curriculum planners' awareness of the implementability potential and the school jurisdiction's commitment to the change process, although ranked 6th and 7th, respectively,are practically of equal importance.
- School board support, working through opinion leaders, personal communication levels within SJ and the efforts of AE personnel in contacting SJ clients, hold Importance Rankings 8 and 9, and appear to be considerably less important than the previous factors.
- Innovativeness of the SJ and implementation costs, in llth place, appear to be considerably less important than the factors immediately above.
- Program compatibility with SJ needs and AE staff orientation to the SJ, although ranked 12th and 13th, should be treated as of equal importance.
- Extent of trial experimentation with the program, community support, and extent of local modification and reinvention of the program are relatively equal in importance.
- Peer status in implementation, as stated above appears to be relatively unimportant.

More than the two additional factors shown in Table 41 were mentioned but the others were subsets of the common factors ranked by respondents or were included in other sections in which they were relevant.

However, in light of reactions to values clarification in Social Studies, wholistic approach in Language Arts, sexual education in Health, and more recently continuous education, political intervention is worthy of special mention. School board support and program compatibility are two factors significantly affected. The above intervention is likely the basis for an earlier finding which suggests that AE take a more active role in marketing programs to the public.

Provinicial status of the change, that is a core subject, or even more importantly, one which is provincially examined, is a significant factor. It does not bear a one-to-one correspondence to any of the common factors. The significance of the influence upon both teachers and the public, and hence upon implementation, is self-evident.

In the Importance Ranking of factors influencing delivery and implementation, respondents at all three levels overwhelmingly identify inservicing as the most important factor. They are equally clear in identifying the hands-on workshop as the most helpful method of delivery. Specific findings regarding delivery methods were:

- Hands-on workshops should be peer based, ongoing over an extended period, and as close to home base as possible. 81%
- Establishing video and telephone conferences, characterized by flexible accessing, so that teachers can choose topics of interest and times suitable to their particular needs. 19%
- Awareness seminars are useful but must have accessibility as a key factor. 15%
- Clarification of functional responsibilities of department, jurisdiction and profession when inservicing is essential. 12%
- Pointed simple newsletters are valuable as a feedback mechanism. 4%

Methods which were identified as the least helpful were:

- Newsletters or printed materials of a general and extensive nature, because they did not provide opportunities for clarification of intent and consequent significance for classroom application. 50%
- One-time inservice events which serve an awareness need but fail in persuading teachers to move to decision, adoption and confirmation levels. 38%
- Series of passive presentations with respect to implementing a change. 4%

CONCLUSIONS AND RECOMMENDATIONS

On the basis of generalizations from the research, the data received in the interviews and the experience of the study team it is concluded:

C 15.1 That factors which support local implementation activities, for the most part, take precedence over communication and program factors. This is consistent with current policy, which requires jurisdictions to accept prime responsibility for implementation.

C 15.2 That inservicing, supported by adequate time and resources, is the prime essential of implementation.

C 15.3 That program changes which involve changes in values and which are not seen as more advantageous than present programs will require extensive support in the implementation process.

C 15.4 That program changes involving political sensitivities will require significant marketing of the change at both provincial and local levels.

C 15.5 That the relevance of administrative support to the implementation process requires briefing of administrators at all levels concerning program changes.

C 15.6 That changes in core programs, especially those examined provincially, are assigned high priority by implementors.

It is recommended:

R 15.1 That a careful assessment of need, (Eg. Teaching tasks and attitudes), contributed to by individuals at local, regional and provincial levels, be an essential first step in designing an implementation plan.

R 15.2 That AE complement and support local initiatives in implementation. (Eg. Facilitation of coordination, preparation of key resources etc.)

R 15.3 That political sensitivities of program changes be dealt with at the design stage rather than at the point of implementation.

R 15.4 That AE prepare brief overviews of program changes which can be used with parents, boards and administrators in jurisdictions.

CURRICULUM IMPLEMENTATION SUPPORT MODELS

The following questions outlined in the Terms of Reference are addressed in this section:

2(a) How effective have the models in use by Alberta Education, historically and currently, been in meeting student and teachers needs?

2(b) What adjustments to support models are needed to increase the efficacy of curriculum implementation processes?

IMPLEMENTATION MODELS

As outlined in the INTRODUCTION, this study in its focus on needs and/or enhancements was to include curriculum implementation models. The specific problem and sub-problems to be addressed were:

How effective are the curriculum implementation models in use by Alberta Education in meeting student and teacher needs?

a) What models have been used historically and are currently in use to support curriculum implementation?

b) What adjustments to curriculum implementation models are needed to increase the efficacy of curriculum implementation processes?

Historic Review of Alberta Models

Patterson (1986) provided an historic review of Alberta Education's involvement in the implementation of new or revised programs. In summary, key features have been:

- preparation and diffusion of curriculum information and materials including a program of study, curriculum guide and handbook (where appropriate); and
- authorization of learning resources with provision of 40% discount on all primary references; and
- provision of a list of resource materials; and
- provision of educational consultants to work with teachers in so far as time permits; and
- preparation and/or selection of broadcast, telecast and other audio-visual products to explain the implementation of the program of study where appropriate; and
- sponsorship and conduct of orientation workshops.

The above involvement of Alberta Education focused mainly on content by way of programs of study, curriculum guides, primary references and audio-visual support materials (Inputs). Concepts and procedures in the task of instruction, often as new to the teachers as to the students, if dealt with at all, were relegated to secondary importance.

Also, past efforts have not always reflected factors which influence the magnitude of implementation needed to match the proposed change. Changes in content, unless significant in amount or kind, may be achieved with modest implementation efforts. If concepts, skills and attitudes to be attained are markedly different and require substantial changes in teaching strategies as well, then nothing short of a major effective implementation thrust will suffice. Value clarification in Social Studies, wholistic approach in Language Arts, sensitive content in Health and the political concern regarding internship were examples requiring maximum effort.

Consequently, in 1980, the Tripartite Committee on Inservice Education concluded:

> **Traditionally the responsibilities for implementation have been left with the classroom teacher, supported by system supervisors, professional association resources, or consultative assistance drawn from the universities of Alberta and Alberta Education.(p.7)**

Recent Implementation Attempts

Since the study by the Tripartite Committee a number of implementation strategies have been used. A capsule summary of these efforts as reviewed by Patterson (1986) follows:

Cascade Model (Pyramid Model)

Lead teachers (in the subject area) are identified jurisdictionally and given inservice training. They inservice jurisdictional individuals and consequently the term "cascade" is used.

Social Studies Inservice Project Model

This model was born as a consequence of a major assessment of instruction in the subject, Downey (1975); two significant program revisions; and the Tripartite Committee's advocacy of systematic inservice. The model was marked by three significant characteristics:

- Peer-based conduct of inservice activities by "resource teachers" released for training and deployment in a jurisdiction, usually their own.
- Consultation/demonstration as the approach to inservice, initiated by workshops and followed by individual consultation during a five-month period.
- Shared responsibility for the funding, management and delivery of the project among Alberta Education, jurisdictions and the professional association.

Doherty and MacKay (1982) conducted a comprehensive evaluation of the above implementation model. In short, although many positive results were achieved, time, coordination, follow-up and evaluation were limiting factors.

Regional Office Model

The function of consultation/implementation dominated the role of the regional office consultants prior to 1984. This has significantly altered to a monitoring/evaluative mode, sharply reducing the role of the consultants in implementation.

Policy Model

When the policy approach in Alberta Education was introduced in 1984 funding for inservice was provided according to suggested program priorities for all grades. In recent years the policy has been applied primarily to secondary education. Responsibility for mounting and implementing inservice rested with school jurisdictions, having access to consultative support from the teaching profession and Alberta Education.

Specific Applications

Patterson (1986) reviewed implementation applications which had been studied and/or examined. Social Studies, Elementary Health and Initial Teaching Project were selected. Some general characteristics of these applications were:

- Initiation and coordination by Alberta Education, with expectations that jurisdictions would participate.
- Utilization of "facilitators" drawn from the ranks of administrators, supervisors or classroom teachers to provide a "cascade" effect.
- Joint funding based on the primary roles of the participating agencies (department, profession and jurisdiction).
- Basic support resources, print or audio-visual, provided or made accessible at cost by Alberta Education.
- Implementation was intensive and compressed into abbreviated time periods.
- Each application appeared to be "free standing", having a design and momentum with only coincidental relationship to a common model or overall plan.
- Determinants of success of implementation not readily apparent at the initiation of the project.

Impact of Implementation Efforts

Wighton and Blair (1986), in their internal review of curriculum development and implementation, list some perceptions from the field relative to the impact of the implementation process in Alberta. These are directly or indirectly reinforced by findings in the school and telephone interviews conducted in this study.

- Research evidence regarding the process of change is not applied consistently.
- Financial resources are inadequate.
- Absence of a well-developed model for implementation results in confused perceptions relative to departmental, jurisdictional and professional roles and responsibilities. Politics of the occasion becomes the determiner of priorities, roles and responsibilities.

- Implementation is not viewed as being of equal importance with development, in time or financing.

- Curriculum guides become the object rather than the instrument of implementation.

- Utilization of temporary personnel (project managers) for only the development process denies continuity and credibility to the implementation process.

- Regional offices, as primary mediators between provincial and jurisdictional perspectives, have monitoring/evaluative roles which are not readily conducive to implementation.

Harvey Research (1988, pp 39-40), in the literature review for this study, reports the findings of Berman and McLaughlin regarding generic factors that usually did not work in implementation. The factors, without discussion, are listed below. Reviewing abbreviated accounts of recent major implementation projects leads one to conclude that many of these factors, varying with each project, influenced the results. Obviously, 'pay for training' was not involved in any of the projects.

- Use of outside consultants

- Packaged management approaches

- One-shot pre-implementation training

- Pay for training

- Formal evaluation

- Comprehensive projects

When one reflects on the magnitude of some of the implementation projects, the high quality of support resources used, and the dedication and competence of participants at all levels, it is unfortunate that a cloud of ineffectiveness still hangs over the implementation process. CALM 20 inservice with its narrowed focus (one grade, one subject), use of experienced credible peers, teacher resource manuals and its emphasis upon hands-on experiences was roundly praised and appreciated by individuals involved. Experiences of this kind are of assistance in designing future efforts.

However, in the absence of a generic model for implementation, jointly developed and widely disseminated, a common base for shaping realistic expectations does not exist. It is the view of the study team that what has been historically lacking is the political will at provincial and jurisdictional levels to provide sufficient time and money to design and maintain a consistent and effective implementation process. Nevertheless, even in the absence of political will, a generic model, judiciously applied, could maximize the effectiveness of time and money available. Alberta Education has, or has access to, the documentation and expertise to develop an adequate implementation model. The Harvey Reasearch (1988) review provides significant theoretical and practical assistance for such a development.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations which follow reflect an analysis of the literature review of this study; review documents of the development and implementation processes, as provided by Alberta Education; relevant findings of the school based interviews and of the telephone interviews with jurisdictional, regional and provincial educators. The latter represent divisions and branches of Alberta Education and representatives of the professional association with provincial responsibilities.

It is concluded:

C 16.1. That a provincial plan or generic model for implementation, reflective of research and practice with regard to the process of change, does not appear to be in place.

C 16.2. That priorities, structures, processes and financing of implementation are primarily determined by the political persuasions of participating agencies (department, jurisdictions and profession).

C 16.3. That peer-based structures and processes are becoming dominant and useful features of implementation.

C 16.4. That determinants for evaluating the success of implementation are more often *post facto* than *a priori* and favor inputs over processes and outputs.

C 16.5. That dedicated and competent efforts in implementation at jurisdictional levels seem lacking in interjurisdictional and provincial coordination, thus limiting the efficiency and effectiveness which might otherwise prevail.

C 16.6. That accommodation of individual differences and evaluation of student progress become dominant needs of teachers over the continuum of implementation.

It is recommended:

R 16.1. That a generic model for implementation of new and revised programs, which is reflective of the process of change as evident in research and practice, be jointly developed, adopted, widely distributed and evaluated.

In keeping with current practice in Alberta Education, a policy, guidelines and procedures statement for implementation is a natural extension. Harvey Research (1988, pp.28-30) would be most helpful in developing a statement of intent.The above literature review is also replete with assistance in establishing guidelines and procedures. Conclusions and recommendations in Tripartite Committee (1980, pp. 11-16) is another source for generating guidelines. Similarly, suggestions for procedures are provided in the 'Implementation Prototype for Social Studies', Appendix C, of the same document.

R 16.2. That the degree and diversity of need for each implementation be carefully assessed and the model adapted accordingly.

R 16.3 That greater coordination, provincially-led, be given to current jurisdictional, regional and provincial implementation activities.

R 16.4. That more attention be given to accommodating individual differences and evaluating of pupil progress in the inservice activities of implementation.

R 16.5. That a more equitable emphasis between inputs, processes and outputs be attempted in both program implementation and evaluation.

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APPENDIX A

THE INTERVIEW SCHEDULES AND RECORDING FORMS
CORRESPONDENCE

CURRICULUM DELIVERY AND IMPLEMENTATION SUPPORT NEEDS

The Curriculum Support Branch of Alberta Education has initiated this survey of users of its curriculum guides and other service documents and services. The purposes of the survey are: 1) to determine how effective these publications and services are in meeting teacher and student needs, and 2) to identify means by which curriculum delivery and implementation can be improved.

All responses are recorded anonymously. Individuals, schools, or school districts will not be identified in any report. The evaluation is about the publications and support services of Alberta Education and does not address the effectiveness of particular persons, schools or school districts.

Please respond about the particular program selected by thinking back to when the revision or new curriculum was introduced (and/or when you became aware that you would be teaching it or providing administrator or counsellor support). Circle your response when one is provided (as in the rating scales), complete the blanks where requested and record your comments in the appropriate spaces.

The first section of the recording form (labelled Record #1) refers to the most recent Alberta Education curriculum guide for the subject/program area chosen. Record # 2 is for recording responses of up to two supplementary support documents or services associated with the same subject/program area.

RECORD # 1

RESPONDENT'S DESCRIPTION

Office use only

Are you responding as a teacher, counsellor or administrator? (circle one) 6

Your university major ______________________________ 7

Your university minor ______________________________ 8

Do you feel you are teaching outside your area of competence in the assignment to teach this program? *Yes (1), No (2)* 9

Years total professional experience ____________ 9-10

Subject or program being rated (circle one) 11-12

ECS	**Elementary**	**Junior High**	**Senior High**
A specific publication (specify ↓)	Health Lang. Arts Math Drama	Lang. Arts Math Science Health & PL skills	Reading 10 CALM 20 Math Eng. 13-23-33* Art 10-20-30* French 10-20-30*

*one or more in the sequence

Grade(s) associated with program or service being rated ____________________ 13-14

INITIAL NEEDS AND UNCERTAINTIES

When you **first** *became aware you would be teaching/administering the program selected above:*

1. Did you have any qualms or uncertainties? *Yes (1), (No (2)* 15
2. If "Yes", please specify the concerns you had

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3. How were your initial concerns dealt with?

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4. Were your initial concerns resolved satisfactorily? (Use the rating scale below to respond by circling the appropriate numeral) 26

5 - very satisfactory
4 - satisfactory
3 - satisfactory in part only
2 - unsatisfactory
1 - very unsatisfactory
0 - nil rating

CURRENT NEEDS AND UNCERTAINTIES

Office use only

5. Do any of your early concerns persist to this day? Yes (1) No (2) (circle one) 27

6. If "Yes", specify which problem areas remain.
______________________________ 28
______________________________ 29
______________________________ 30
______________________________ 31
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7. Later, as you implemented (taught/administered) the new/revised program, did other problems appear? Yes (1) No (2) (circle one) 33

8. If "Yes", please specify the nature of these difficulties ______________________________
______________________________ 34
______________________________ 35
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9. How do you suggest each of the difficulties mentioned above (in # 6 and #8) could best be reduced or eliminated?
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ALBERTA EDUCATION CURRICULUM GUIDE

44-51

With reference to the Alberta Education Curriculum Guide (termed Teacher Resource Manual re: Jr. High Math) for ______________________ (subject) 52-54
grade ______________ (record again the selection made on page 2 of this) questionnaire). 55-56

10. Are you familiar with it? Yes (1), No (2) (circle one) 57

If you responded "Yes", answer questions 11-43.

11. What use(s) do you make of the Curriculum Guide? ______________________________
______________________________ 58
______________________________ 59
______________________________ 60
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______________________________ 62

12. Have you had a copy of the Curriculum Guide during all or most of the current school year? Yes (1), No (2) (circle one) 63

For the aspect(s) of the Curriculum Guide which you have selected for comment below, please use the following rating scales.

How understandable?		**How useful?**	
5	very easy	5	very useful
4	easy	4	useful
3	partly easy, partly difficult	3	parts are useful
2	difficult	2	useless
1	very difficult	1	very useless
0	not familiar to me	0	not familiar to me

TEACHING STRATEGIES

Office use only

13. Is this a component of the Curriculum Guide? Yes (1), No (2) (circle one) 64
If "No", proceed to Question # 17.

14. If "Yes", what use do you make of it? ____________

____________ 65

____________ 66

____________ 67

15. How understandable? 5 4 3 2 1 0 (circle one rating) 68

16. How useful? 5 4 3 2 1 0 (circle one rating) 69

From your knowledge of other curriculum guides . . .

17. Name one(s) you would rate highly on this component ____________

18. One(s) you would rate low ____________

19. Recommend changes (or additions/deletions) ____________

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MANAGING INDIVIDUAL DIFFERENCES AND ADJUSTING TO VARYING STUDENT ENTRY LEVELS

20. Is this a component of the Curriculum Guide? Yes (1), No (2) (circle one) 75
If "No", proceed to Question # 24.

21. If "Yes", what use do you make of it? ____________

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22. How understandable? 5 4 3 2 1 0 (circle one) 79

23. How useful? 5 4 3 2 1 0 (circle one) 80

From your knowledge of other curriculum guides . . .

24. Name one(s) you would rate highly on this component ____________

25. Name one(s) you would rate low ____________

Office use only

26. Recommend changes (or additions/deletions) ______________________

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EVALUATING PUPIL PROGRESS

27. Is this a component of the curriculum Guide? Yes (1), No (2) (circle one) 86
If "No", please proceed to Question # 31

28. If Yes, what use do you make of it? ______________________

87

88

89

29. How understandable? 5 4 3 2 1 0 (circle one) 90

30. How useful? 5 4 3 2 1 0 (circle one) 91

From your knowledge of other curriculum guides . . .

31. Name one(s) you would rate highly on this component ______________________

32. Name one(s) you would rate low ______________________

33. Recommend changes (or additions/deletions) ______________________

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INFORMATION ABOUT OTHER TEACHER REFERENCES, LEARNING RESOURCES AND INSTRUCTIONAL MATERIALS

34. Is this a component of the Curriculum Guide? Yes (1), No (2) (circle one) 97
If "No", please proceed to Question # 38.

35. If "Yes", what use do you make of it? ______________________

98

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36. How understandable? 5 4 3 2 1 0 (circle one) 101

37. How useful? 5 4 3 2 1 0 (circle one) 102

From your knowledge of other curriculum guides . . .

38. Name one(s) you would rate highly on this component ______________________

39. Name one(s) you would rate low ______________________

Office use only

40. Recommend changes (or additions/deletions) ____________________

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OTHER ASPECT OF THE CURRICULUM GUIDE

41. Specify the feature(s) selected for comment

____________________ 108

42. How do you use the feature(s) selected?

____________________ 109

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____________________ 111

43. How understandable?	5	4	3	2	1	0	(circle one)	112
44. How useful?	5	4	3	2	1	0	(circle one)	113

From your knowledge of other curriculum guides . . .

45. Name one(s) you would rate highly on each feature selected ____________________

46. Name one(s) you would rate low on each feature selected ____________________

47. Recommend changes (or additions/deletions) to each component selected*

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*Note: - If more space is required please use the bottom of page 7.

YOUR FACULTY OF EDUCATION PRESERVICE PROGRAM

Rate and comment about the usefulness of your faculty of education preservice program in preparing you to cope with curriculum change.

48. How useful?	5	4	3	2	1	0	(circle one)	119

Comments ____________________

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SUPPLEMENTARY DOCUMENT(S) OR SERVICE(S) WHICH ACCOMPANY THIS CURRICULUM GUIDE

Office use only

Was the Curriculum Guide discussed above accompanied by other support documents and services (excluding the Program of Studies)? e.g., a manual, monograph, teacher resource guide, teaching units, multi-media inservice kit, regional orientation inservice, local inservice, other (specify).

---

49. Yes (1), No (2), Don't know (3) (circle one) 122

50. If "Yes"

   i) Please circle the support document(s) 123
   and/or service(s) listed above in the set of examples from which you 124
   have personally benefited, and

   ii) please respond to the set of ratings and questions about several of the supplementary document(s) or services in Record # 2 attached 125

Thank you for the information provided.

RETURNING COMPLETED QUESTIONNAIRE AND INTERVIEW RECORDS

If completed record forms are not picked up please mail to the following:

H.C. Rhodes
11711 - 49th Avenue
EDMONTON, Alberta
T6H 0G9

RECORD # 2

ALBERTA EDUCATION SUPPORT DOCUMENTS AND SERVICES

Record # 2 excludes reference to the Curriculum Guide (already critiqued and rated using Record # 1) and the Program of Studies. It is to be used in responding about documents or services in the same subject or program area addressed using Record # 1. If you are aware of any supplementary documents or supporting services please select one or more from the following: any manual, teacher resource guide, teaching units, multi-media inservice kit, regional orientation inservice, local inservices, consultations, other (specify) ______________________________

____

Office use only

This is Record # 2 — 1

RESPONDENT DESCRIPTION — 2-6

Subject or program area (same as the one critiqued using Record # 1) ______________________ 7-9

Grade(s) associated with the program document or service being rated (same as in Record # 1) 10-11
Grade(s) ______________

RATINGS AND COMMENTS

1. Type (from the list above) ______________________________ 12-13
2. Title (Alberta Education Publications Catalogue), if applicable ______________________________ 14-21

For the aspect(s) of the document or service which you have selected for comment, please use the rating scales below:

How understandable?	**How useful?**
5 - very easy	5 - very useful
4 - easy	4 - useful
3 - partly easy, partly difficult	3 - parts are useful
2 - difficult	2 - useless
1 - very difficult	1 - very useless
0 - not familiar to me	0 - not familiar to me

TEACHING STRATEGIES

3. Was teaching strategies part of the support material, inservice or consultation selected in # 1 above? Yes (1), No (2) (circle one) 22
If "No" please proceed to Question # 7.

Office use only

4. If "Yes", how have you specifically benefited? (Give examples of strategies you were reminded about) ____________________

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5. How understandable? 5 4 3 2 1 0 (circle one rating) 26

6. How useful? 5 4 3 2 1 0 (circle one rating) 27

From your knowledge of other services or Alberta Education materials . . .

7. Name one(s) you would rate highly on the teaching strategies component ____________________

8. Name one(s) which you would rate low on this component ____________________

9. Recommend changes (or additions/deletions) to the document or service ____________________

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MANAGING INDIVIDUAL DIFFERENCES AND ADJUSTING TO VARYING STUDENT ENTRY LEVELS

10. Was attending to differences among pupils addressed in the material or service selected for critique? Yes (1), No (2), (circle one) 33
If "No" proceed to Question # 14.

11. If "Yes", how have you benefited specifically? (Give examples) ____________________

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12. How understandable? 5 4 3 2 1 0 (circle one rating) 37

13. How useful? 5 4 3 2 1 0 (circle one rating) 38

From your knowledge of other services or Alberta Education materials . . .

14. Name one(s) you would rate highly on attending to individual differences ____________________

15. Name one(s) which you would rate low ____________________

Office use only

16. Recommend changes (or additions/deletions) ____________________

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EVALUATING PUPIL PROGRESS

17. **Was attending to evaluating pupil progress included in the material or service being critiqued?** Yes (1), No (2) (circle one) 44
If "No", please advance to Question # 21.

18. If "Yes", how have you benefited specifically?

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____________________ 46

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19. How understandable? 5 4 3 2 1 0 (circle one rating) 48

20. How useful? 5 4 3 2 1 0 (circle one rating) 49

From your knowledge of other services or Alberta Education materials . . .

21. Name one(s) you would rate highly on how to evaluate the progress of pupils ____________________

____

22. Name one(s) which you would rate low ____________________

____

____

23. Recommend changes (or additions/deletions) ____________________

____________________ 50

____________________ 51

____________________ 52

____________________ 53

____________________ 54

INFORMATION ABOUT OTHER TEACHER REFERENCES, LEARNING RESOURCES AND INSTRUCTIONAL MATERIALS

24. **Was information about other materials provided in this document or service?** Yes (1), No (2) (circle one) 55
If "No", please proceed to Question # 30

25. If "Yes", how have you benefited?

____________________ 56

____________________ 57

____________________ 58

Office use only

26. How understandable? 5 4 3 2 1 0 (circle one rating) 59

27. How useful? 5 4 3 2 1 0 (circle one rating) 60

From your knowledge of other services or Alberta Education materials . . .

28. Name one(s) you would rate highly on referencing other materials ____________

29. Name one(s) which you would rate low on this feature ____________

30. Recommend changes (and additions/deletions) ____________

____________ 61

____________ 62

____________ 63

____________ 64

____________ 65

OTHER ASPECTS OF THIS DOCUMENT OR SERVICE

31. Specify the feature(s) selected for comment

____________ 66

____________ 67

32. How do you use the feature(s) selected?

____________ 68

____________ 69

____________ 70

33. How understandable? 5 4 3 2 1 0 (circle one rating) 71

34. How useful? 5 4 3 2 1 0 (circle one rating) 72

From your knowledge of other services or Alberta Education services . . .

35. Name one(s) you would rate highly on referencing other this feature ____________

36. Name one(s) which you would rate low ____________

37. Recommend changes (and additions/deletions) ____________

____________ 73

____________ 74

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____________ 76

____________ 77

Questions 38-81 are to be answered with respect to a second supplementary document or supporting service (such as a regional orientation inservice by Alberta Education, or local inservice or consultation). Once again, this section of Record # 2 excludes reference to the Curriculum Guide and the Program of Studies. It is to be used in responding about provincial or local services, or about an Alberta Education document not addressed previously. As before, the ratings and comments refer to the same subject or program addressed using record # 1.

If you are aware of a second service service or publication aimed at orienting teachers to a curriculum change or assisting in its implementation, please select (circle) from the following: any manual, teacher resource guide, teaching units, multi-media inservice kit, regional orientation inservice, local inservice(s), consultation(s), other specify) ______________

Office use only

Publication, kit, or support service selected. Specify by . . .

38. Type (from the list above) ____ 78-79

39. Title (Alberta Education Publications Catalogue), if applicable ____________________ 80-87

As before, for the various aspects of the document or service which you have selected for comment, please use these rating scales:

How understandable?		**How useful?**	
5	very easy	5	very useful
4	easy	4	useful
3	partly easy, partly difficult	3	parts are useful
2	difficult	2	useless
1	very difficult	1	very useless
0	not familiar to me	0	not familiar to me

TEACHING STRATEGIES

40. Was teaching strategies part of the support material, inservice or consultation selected in # 38/39 above? Yes (1), No (2) (circle one) 88
If "No" proceed to Question # 44.

41. If "Yes", how have you benefited specifically? (Give examples of strategies you were reminded about ____
____ 89
____ 90
____ 91

42. How understandable? 5 4 3 2 1 0 (circle one rating) 92

43. How useful? 5 4 3 2 1 0 (circle one rating) 93

From your knowledge of other services or Alberta Education materials . . .

44. Name one(s) you would rate highly on the teaching strategies component ______________
____

45. Name one(s) which you would rate low on this component ______________________
____
____

Office use only

46. Recommend changes (and additions/deletions) to the document or service ____________________

____ 94

____

____ 95

____ 96

____ 97

MANAGING INDIVIDUAL DIFFERENCES AND ADJUSTING TO VARYING STUDENT ENTRY LEVELS

47. Was attending to differences among pupils addressed in the material or service selected for critique? Yes (1), No (2) (circle one) 98
If "No", proceed to Question # 51.

48. If "Yes", how have you benefited specifically? (Give examples) ____________________

____ 99

____ 100

____ 101

49. How understandable? 5 4 3 2 1 0 (circle one rating) 102

50. How useful? 5 4 3 2 1 0 (circle one rating) 103

From your knowledge of other services or Alberta Education materials . . .

51. Name one(s) which you would rate highly on attending to individual differences ____________

____

52. Name one(s) which you would rate low ____________________________________

____

____

53. Recommend changes (and additions/deletions) ____________________________

____ 104

____

____ 105

____ 106

____ 107

EVALUATING PUPIL PROGRESS

54. Was attending to evaluating pupil progress included in the material or service being critiqued? Yes (1), No (2) (circle one) 108
If "No", please advance to Question # 58.

55. If "Yes", how have you benefited specifically?

____ 109

____ 110

____ 111

56. How understandable? 5 4 3 2 1 0 (circle one rating) 112

57. How useful? 5 4 3 2 1 0 (circle one rating) 113

Office use only

From your knowledge of other services or Alberta Education materials . . .

58. Name one(s) which you would rate highly on attending to individual differences

59. Name one(s) which you would rate low

60. Recommend changes (and additions/deletions)

114

115

116

117

INFORMATION ABOUT OTHER TEACHER REFERENCES, LEARNING RESOURCES AND INSTRUCTIONAL MATERIALS

61. Was information about other materials provided in this document or service? Yes (1), No (2) (circle one) 118
If "No" please proceed to Question # 65.

62. If "Yes", how have you benefited?

119

63. How understandable? 5 4 3 2 1 0 (circle one rating) 120

64. How useful? 5 4 3 2 1 0 (circle one rating) 121

From your knowledge of other services or Alberta Education materials . . .

65. Name one(s) which you would rate highly on referencing other materials

66. Name one(s) which you would rate low on this feature

67. Recommend changes (and additions/deletions)

122

123

124

125

ADDITIONAL COMMENTS

If the space and format in the preceding sections has been too constraining, please record additional comments below. Your comments and recommendations concerning topics not addressed above would be appreciated e.g., regarding other Alberta Education documents or service, or local inservice and consultations relative to learning about program changes and implementing them effectively.

If completed survey forms have not been picked up at the school please mail to:

H.C. Rhodes
11711 - 49 Avenue
EDMONTON, Alberta
T6H 0G9

Name ______________________________ Telephone ________________
Position ___________________________ Interview time ____________

ALBERTA EDUCATION CURRICULUM DELIVERY AND IMPLEMENTATION STUDY
PROVINCIAL-LEVEL, REGIONAL-LEVEL, AND SCHOOL-DISTRICT LEVEL INTERVIEWS

1. What factors make a difference in the way Alberta Education and school jurisdictions work together in support of curriculum delivery and implementation?

Please rate each of the following factors on a 5-point scale from
least important (1)
to **most important (5)**.

Possible Factors	Importance				
	Least				Most
a. extent to which Alberta Education (AE) staff work through opinion leaders in school jurisdictions (SJ)	1	2	3	4	5
b. extent of personal communication within the school jurisdiction	1	2	3	4	5
c. extent of effort of AE staff in contacting SJ clients	1	2	3	4	5
d. extent to which AE staff are oriented to the SJ rather than to AE	1	2	3	4	5
e. degree to which a curriculum implementation program is compatible with SJ needs	1	2	3	4	5
f. relative advantage of new curriculum over current curriculum	1	2	3	4	5
g. compatability of new curriculum to existing values	1	2	3	4	5
h. complexity of curriculum in terms of understanding and using it	1	2	3	4	5
i. extent to which curriculum can be experimented with on a trial basis	1	2	3	4	5

Possible Factors			Importance		
	Least				Most
j. status in eyes of peers resulting from curriculum implementation	1	2	3	4	5
k. appropriateness of communication channels including feedback mechanisms	1	2	3	4	5
l. innovativeness of SJ	1	2	3	4	5
m. school board support	1	2	3	4	5
n. community support	1	2	3	4	5
o. school administration support	1	2	3	4	5
p. SJ commitment to the process of change	1	2	3	4	5
q. extent to which curriculum planners are aware of situations which potential implementers are facing	1	2	3	4	5
r. extent of modification or reinvention of the curriculum at the local level	1	2	3	4	5
s. in-service training	1	2	3	4	5
t. resource support (time & materials)	1	2	3	4	5
u. cost of curriculum implementation	1	2	3	4	5
v. participation by teachers in curriculum development	1	2	3	4	5
w. other ______________________	1	2	3	4	5
x. ______________________	1	2	3	4	5

2. What changes would you recommend for curriculum support documents and resources to improve their effectiveness?

3. What changes would you recommend for curriculum support documents and resources to improve their efficiency?

4. What features of curriculum support documents and resources would you leave as is?

5. Which methods of delivery designed to help school staff implement new and revised curricula are most helpful? (e.g. seminars, workshops, newsletters, etc.)

Which are least helpful?

For Provincial- and Regional-Level Interviews:

6. What are the formal communication channels currently in use between the Curriculum Support Branch and other branches, school jurisdictions, etc. to enhance curriculum delivery and implementation? What functions does each play? How much is each used?

For School-District Level Interviews

6. What are the formal communication channels currently in use between Alberta Education and school jurisdictions to enhance curriculum delivery and implementation? What functions does each play? How much is each used?

Formal Communication Channels	Function	Extent of Use (Rate from 1 = rarely to 5 = frequently)

7. Are there informal communication channels as well? What functions does each play? How much is each used?

Informal Communication Channels	Function	Extent of Use (Rate from 1 = rarely to 5 = frequently)

8. What changes would improve communications?

timing?

packaging?

nature of feedback?

other?

9. What communication channels have not been explored that might prove helpful to the curriculum delivery/implementation process?

10. What information is the Student Evaluation and Records Branch collecting that is of help to you in curriculum implementation?

11. What additional information would it be helpful to have from the Student Evaluation and Records Branch? What stands in the way of obtaining that information now?

12. What information sources other than those from the Student Evaluation and Records Branch, such as Annual Education Reports, could be used to judge the effectiveness of curriculum delivery and implementation?

Additional Comments:

THANK YOU VERY MUCH FOR YOUR HELP!

Alberta
EDUCATION
Devonian Building, West Tower, 11160 Jasper Avenue, Edmonton, Alberta, Canada T5K 0L2
(403) 427-7484

November 9, 1988

Dr. John McCarthy
Superintendent
Calgary R.C.S.S. District #1
1251 - 1 St. Avenue S.W.
Calgary, Alberta
T2G 0G5

John

Dear Dr. McCarthy:

Curriculum Documents and Resources Review

The Curriculum Support Branch and the Planning, Policy and Research Secretariat have contracted with Harvey Research Ltd., for a field study To Determine Teacher and Student Needs Regarding Curriculum Documents and Resources. A major portion of the data collection will be from personal interviews with a selection of teachers and school staff across the province. There will also be a number of telephone interviews with staff involved in curriculum delivery at the regional and school district levels.

We request permission for Father Damien School and St. Mary's Community School to be included in the study. If permission is granted, one member of the consulting team will visit the school for one day to conduct interviews with up to eight teachers, a counsellor and the principal or designate regarding their experience with and opinions about selected curriculum documents. A copy of the record forms is enclosed for your information.

If you have any questions, please call one of the study team members (Clarence Rhodes at 435-0931 or Ann Harvey at 467-1127) for further information The attached letter will be sent to the principal of the above named school if permission is granted. Clarence or Ann will contact you regarding this request.

Sincerely,

Bill

Bill Duke
Assistant Deputy Minister
Program Delivery

Enclosure

HARVEY RESEARCH LTD.
52010 RANGE ROAD 225
SHERWOOD PARK, ALBERTA
T8C 1C5 (403) 467-1127

November 9, 1988

Ms. Elizabeth Flaherty, Principal
Father Damien School
3619 - 28 Street, S.E.
Calgary, Alberta T2B 2J1

Dear Ms. Flaherty:

We are currently carrying out a study of teacher and student needs regarding curriculum documents and resources. Your school is one of 36 from across the province that we would like to include in the study. (A brief description of the study is included in the attached letter that was sent to your superintendent.)

Participation in the study would involve having one member of the consultant team spend one day in your school for interviews with a maximum of 8 teachers (a minimum of one per grade including ECS), a guidance counsellor (if applicable), and either you or a designate.

This study is not an evaluation of individuals, principals, schools or school jurisdictions. It is a review of the Curriculum Support Branch, Alberta Education. All answers will be anonymous and no school jurisdiction, school or individual will be identified in the report.

We would appreciate it if you would select a mix of teachers to be interviewed including experienced specialists and newcomers to teaching and/or those who are teaching outside their speciality. We hope that all the teachers selected will be willing to be interviewed.

For elementary grades we will be interviewing teachers about curriculum documents and resources in Language Arts
Mathematics
Health
Drama
ECS.

Interviews with teachers who can comment on two of the above subjects will take about 30 minutes; 20 minutes will be sufficient for interviews about one subject only. A copy of the record forms is enclosed for your information.

It would be very helpful if you could schedule the day's interviews. The consultant will be available for interviews before and after school, during lunch hour, and through the school day.

Please call me if you find that your school cannot participate in this study. Otherwise one of the study team members (Clarence Rhodes, Eugene Torgunrud, or myself) will contact you to set up a suitable date for the interviews.

Please feel free to call me at 467-1127 if you wish any further information.

Sincerely,

Ann L. Harvey
Project Director

cc: Dr. John McCarthy, Superintendent

Encl.

APPENDIX B

ALBERTA EDUCATION SPECIAL EDUCATION SUPPORT DOCUMENTS SURVEY QUESTIONNAIRE (used for interviewing school counsellors)

ERC

Alberta

EDUCATION RESPONSE CENTRE

SURVEY

SPECIAL EDUCATION SUPPORT DOCUMENTS: Present and Future

This survey is being conducted to obtain information on the perceptions of Alberta administrators and teachers on the relevance of special education support documents developed by Alberta Education. In addition, we wish to determine ways in which these and future documents may be improved to better serve teachers and others working on behalf of children with special needs.

Please respond to each document listed. The support documents are divided into two areas: general and specific. The general category lists support documents aimed at all students in areas of special needs. The specific category lists support documents for a particular group of special needs students. Feel free to comment on the positive and negative features of each document and to make recommendations for improvement where you feel they would be needed.

The degree to which results are useful for future development depends on the extent to which responses are accurate and detailed. On the back cover is space for suggestions on future needs in the area of special education support documents.

INNOVATION THROUGH INFORMATION

I. SURVEY OF SPECIAL EDUCATION SUPPORT

Documents	Use of This Document (Check appropriate column)			Relevance in Your Work (Circle appropriate No
	Often	Sometimes	Never	1 2 3 4 5 6 7 8 9 10 not at all very
GENERAL				
Suicide: Prevention and Coping A Manual for Teachers, Counsellors and Administrators **(1987)**				1 2 3 4 5 6 7 8 9 10
Understanding Depression and Suicide (Student Booklet) **(1987)**				1 2 3 4 5 6 7 8 9 10
Review of Issues in Intelligence Test Use in Alberta Schools **(1986)**				1 2 3 4 5 6 7 8 9 10
Job Search Information Guide **(1986)**				1 2 3 4 5 6 7 8 9 10
Career Development Services for Alberta Students **(1984)**				1 2 3 4 5 6 7 8 9 10
Guidance and Counselling Services in Alberta Schools **(1984)**				1 2 3 4 5 6 7 8 9 10
SPECIFIC				
Program Adequacy in Special Education **(1987)**				1 2 3 4 5 6 7 8 9 10
Special Education Manual **(1987)**				1 2 3 4 5 6 7 8 9 10
Organizing an Alberta Career Day **(1986)**				1 2 3 4 5 6 7 8 9 10
Behavior Disorders in Schools - A Practical Guide to Identification, Assesment and Correction **(1986)**				1 2 3 4 5 6 7 8 9 10
Educating Gifted and Talented Students in Alberta: A Resource Manual for Teachers **(1986)**				1 2 3 4 5 6 7 8 9 10
Learning Disabilities - A Resource Manual for Teachers **(1986)**				1 2 3 4 5 6 7 8 9 10
Career Development for Hearing Impaired Students **(1986)**				1 2 3 4 5 6 7 8 9 10
Counselling for Hearing Impaired Students **(1982)**				1 2 3 4 5 6 7 8 9 10
Special Education Handbook **(1982)**				1 2 3 4 5 6 7 8 9 10
The Educable Mentally Handicapped Student in the Regular Classroom **(1982)**				1 2 3 4 5 6 7 8 9 10
The Trainable Mentally Handicapped Student in the Regular Classroom **(1982)**				1 2 3 4 5 6 7 8 9 10
The Hearing Impaired Student in the Regular Classroom **(1982)**				1 2 3 4 5 6 7 8 9 10
The Visually Impaired Student in the Regular Classroom **(1982)**				1 2 3 4 5 6 7 8 9 10
The Physically/Medically Handicapped Student in the Regular Classroom **(1982)**				1 2 3 4 5 6 7 8 9 10
Integration of Dependent Handicap Classes into Regular Schools **(1982)**				1 2 3 4 5 6 7 8 9 10

Comments: Relevance and Suggestions for future changes in these documents

II. FUTURE DOCUMENT DEVELOPMENT

A. Future Needs. What documents would you like to see produced to assist you?

B. Suggested Format. In what format would future documents be most helpful? eg. binders, soft cover, including references, lists of resource people, print vs. non-print (video tapes).

Position: ______________ Urban ______ Rural ______

Optional

Name: ______________

Address: ______________

Return to:

Dr. Garnet Millar
Assistant Director
Research and Development
Education Response Centre
6240 - 113 Street
Edmonton, Alberta
T6H 3L2